

Coping strategies of newly diagnosed patients with type two Diabetes Mellitus at a Hospital in Ghana

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Abstract

Published research on diabetes in Ghana is quite limited and relates mainly to incidence and prevalence of the disease with little research on the patients experiences of coping with the diabetes. It is estimated that diabetes affects 6.3% of the Ghanaian population with type 2 diabetes accounting for 90-95% of all cases of diabetes. In Ghana, individuals diagnosed with type 2 diabetes mellitus are confronted with difficulties including the high cost of treatment of the condition, stigmatization, and interruptions to normal physiological processes. In addition, the patients experience, limited clinic accessibility, inadequate drug availability, inadequate numbers of trained staff, as well as limited availability of equipment needed for adequate care of the condition. The review of literature for this current thesis also showed that none of the studies on coping were undertaken in Ghana, but were conducted in the western world where socio-cultural factors are quite diverse from the Ghanaian situation. In the light of the challenges facing diabetic patients as well as the gap observed in literature, the study set out to explore the coping strategies of patients with type 2 diabetes mellitus at a hospital in Ghana.

A hermeneutic phenomenological approach to qualitative research was utilized. Twenty seven (27) in-depth interviews carried out with newly diagnosed patients with type 2 diabetes, between August and October 2009 at a hospital in Ghana. Interviews were conducted in the local Ghanaian Twi language and English. Participants who could not speak English were interviewed in Twi language and later translated into English by the researcher. Data analysis used Creswell (1998) approach to qualitative data analysis, which provided a rich description of the essential structures of the phenomenon under study.

The study identified patients' perceptions as to the causes of diabetes mellitus, the social meanings attributed to diabetes (with particular attention paid to the language by Ghanaian people to describe disease condition), and subsequently reactions and resolutions to diagnosis. Patients discussed treatment options, while at the same time remaining hopeful of finding a cure. All patients had a firm spiritual belief system that underpinned their understanding of the causation and treatment of their illness. This combined with various degrees of understanding and acceptance of western explanations of illness influenced the coping strategies employed by patients, which variously reported as positive, negative, and alternative strategies.

The study establishes a platform upon which health providers can develop educational programmes for diabetic patients in Ghana, which will address misconceptions about diabetes mellitus in Ghana and the importance of programmes of care, which take account of and build upon the cultural context of 'being Ghanaian'. Diabetes, at least for Ghanaian patients is more than a biomedical disease. In this sense a biomedical framework in and of itself will not enable healthcare providers to effectively manage this chronic disease in the Ghanaian population, but through the inclusion of an understanding of their spiritual beliefs, healthcare providers can understand the realities of what it is like for Ghanaian diabetes patients to live with diabetes. It is argued that a stronger collaboration and integration between traditional healthcare systems and orthodox healthcare systems will provide the optimum opportunity to maximize patient care in Ghana. Future research should concentrate on better understanding how lay knowledge and health related attitudes, beliefs and behaviours are associated with diabetes in Ghana.

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I am appreciative to all the research participants, the newly diagnosed with type 2 diabetes mellitus, who voluntarily shared their experiences with me during data collection. It is my hope that the findings of this study will give healthcare providers in Ghana a better understanding of how to care for patients with diabetes mellitus.

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Dedication

This thesis is dedicated to my parents Papa Ameyaw and Maame Benewaa for teaching me the value of kindness as well as resilience; to my children Bernard, Sandra and Irene Korsah for their extreme love and encouragements. Special and profound dedication goes to my spouse Comfort Korsah whose encouragement, support and love has been a great source of motivation towards this goal.

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LIST OF ABBREVIATIONS

MOH – MINISTRY OF HEALTH

GHS – GHANA HEALTH SERVICE

WHO – WORLD HEALTH ORGANIZATION

IDF – INTERNATIONAL DIABETES FEDERATION

CIA – CENTRAL INTELLIGENCE AGENCY

NHIS – NATIONAL HEALTH INSURANCE SCHEME

BNI – BRITISH NURSING INDEX

CINAHL – CUMULATIVE INDEX TO NURSING AND ALLIED HEALTH
LITERATURE

MEDLINE – MEDICAL LITERATURE ANALYSIS AND RETRIEVAL SYSTEM
ONLINE (U.S. NATIONAL LIBRARY OF MEDICINE'S LIFE SCIENCE **DATABASE**)

MEDLINE – MEDlars on LINE

MCM – MODEL OF COPING MODES

HIV/AIDS – HUMAN IMMUNODEFICIENCY VIRUS/ACQUIRED IMMUNE
DEFICIENCY SYNDROME

SCD – SICKLE CELL DISEASE

COR – CONSERVATION OF RESOURCE THEORY

TM – TRADITIONAL MEDICINE

CAM – COMPLEMENTARY AND ALTERNATIVE MEDICINE

TMSM – TRANSACTIONAL MODEL FOR STRESS MANAGEMENT

OPD – OUT-PATIENT DEPARTMENT

SPSS – STATISTICAL PACKAGE FOR SOCIAL SCIENTISTS

EP – EMOTIONAL PROCESSING

EE – EMOTIONAL EXPRESSION

HBA1C – GLYCATED HAEMOGLOBIN

NCDs - NON COMMUNICABLE DISEASES

EMDC – EXPLANATORY MODEL FOR DIABETES CARE

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Chapter One

1. Introduction

1.1 Introduction and Research Background

Diabetes mellitus is a disabling and chronic metabolic condition associated with hyperglycaemia. Hyperglycaemia results from disturbances related to carbohydrate, protein and fat metabolism due to malfunctioning of the pancreas in terms of insulin secretion, insulin action or the two together. Diabetes mellitus is considered as a condition of public health importance, associated with significant socioeconomic challenges, as well as creating numerous health complications for the affected persons (Mbanya et al., 2010). “The International Diabetes Federation (IDF) estimated in 2009 that the worldwide number of adults with diabetes will increase by 54%, from 284.6 million in 2010 to 438.4 million in 2030” (International Diabetes Federation, Diabetes Atlas, 2009). Similarly, International Diabetes Federation reported in 2013 that about 382 million people, aged between 40 and 59 years globally have diabetes mellitus and that 80% of the affected individuals live in developing countries (International Diabetes Federation, Diabetes Atlas, 2014). It has also been projected that by the year 2035 the number of individuals who were affected in 2013 between 40 and 59 years as noted above will rise to 592 million people with associated complications (International Diabetes Federation, Diabetes Atlas, 2014).

Research studies indicate that factors such as rapid cultural transformations, aging populations, dietary changes, lack of physical activity and obesity as well as other poor lifestyles are partly responsible for the increasing incidence and prevalence of type 2 diabetes mellitus in developing countries, particularly in the sub-Saharan Africa (Mbanya et al., 2010 and Hall et al., 2011). Type 2 diabetes is considered a condition of public health importance

as it poses serious threat to developing countries, including African countries (World Diabetes Foundation Report, 2009). Now type 2 diabetes is considered as one of most damaging conditions affecting millions of people in every country on the earth (International Diabetes Federation, Diabetes Atlas, 2014). Despite this challenge, governments in many countries in sub-Saharan Africa, including Ghana, have demonstrated limited interest in instituting measures to prevent and control type 2 diabetes mellitus. Wild et al., (2004) report that part of this problem is associated with under-reporting of cases due to inadequate and unreliable epidemiological data and information on the incidence and prevalence of diabetes mellitus. Anecdotal reports also indicate that the condition is on the increase in Ghana, as is the global trend (Zimmet, Alberti and Shaw, 2001).

Additionally, Motala et al., (2008) as well as Sobngwi et al., (2004) have noted that due to poor lifestyle and other harmful practices diabetes mellitus is increasing at an alarming rate in many urban Africa communities, but with different prevalence rates in urban and rural communities in sub-Saharan Africa. For example, reports indicate that there is a rural-to-urban prevalence ratio of 1:4 in Tanzania, and that diabetes mellitus is now more widespread in the sub-Saharan African region than previously estimated (Aspray et al., 2000). In Cameroon, Ghana, Guinea, Kenya, Nigeria, Uganda and Zimbabwe the condition is now said to have a prevalence rate between 7% and 10 % (Mbanya et al., 2010). In the Sub-Saharan Africa, diabetes management is associated with delayed reporting to the health facility by patients, poor hospital or clinic attendance, late diagnosis, as well as poor quality of care and management (Mbanya et al., 2010). Report in October 2010 indicated that over 12 million individuals in sub Saharan Africa were believed to have developed diabetes mellitus and that 330,000 persons were likely to pass on from diabetes associated complications in this region and that this figure was estimated to increase twofold in 20 years' time to about 23.9 million

people by close of 2030 (International Diabetes Federation - Diabetes Leadership Forum Africa 2010).

It is also reported that diabetes cases are under-diagnosed in sub-Saharan Africa. For example, Mbanya et al., (1997) indicates that about 60% of diabetes cases in Cameroon were undiagnosed. Similarly, in Ghana, a corresponding figure of 70% was reported (Amoah, Owusu and Adjei, 2002); whilst in Tanzania under diagnosis was reported to be approximately 80 percent (Aspray et al., 2000).

De Graft Aikins (2005) reported that diabetes care in Ghana is poor as a result of limited or difficult access to hospitals and clinics, lack of drugs, exorbitant cost of treatment, inadequate supply of trained staff and use of several alternative sources of diabetes treatment such as herbalists, faith healers and other traditional practitioners by patients, which she termed as “healer shopping” (De Graft Aikins, 2005). In addition to these concerns, it was noted that patients have limited knowledge on the management of the condition, such as how to do self-monitoring and control of blood glucose levels. It was also pointed out that patients hold on to unsuitable and inappropriate health beliefs and practices associated with causes and treatments of diabetes and that these inappropriate health beliefs account for poor diabetes care and treatment outcomes in Ghana (De Graft Aikins, 2005).

In the previous section, the researcher defined diabetes, highlighted some causes of diabetes, and presented global picture of the condition and how it affects individuals. In addition diabetes in some selected countries in sub Saharan Africa were looked at with particular reference to their prevalence ratios in rural and urban settings, including Ghana, ending with some factors which lead to poor diabetes outcome in Ghana just like other countries in the developing world (De Graft Aikins, 2005). The next section centres on research studies on health and healthcare beliefs and practices which helped to focus this study.

1.2 Research Studies on Perspectives of Health and Healthcare Beliefs in Ghana and Some Countries

There are two main types of medical practitioners in Ghana. These are “traditional medical practitioners and scientific medical practitioners” (Twumasi, 2005), who have different views regarding their own practices on how diseases are treated and managed (Twumasi, 2005).

The traditional medical practitioners deal with conditions that are perceived to have been caused by supernatural powers. In other words, the traditional medical practitioners “do not separate natural from spiritual or the physical from the supernatural” (Twumasi, 2005, p. 24).

Similarly, supernatural and witchcraft conceptions also occupy an important place in the mind-set of individuals who visit these traditional medical practitioners with certain diseases (Twumasi, 2005; Assimeng, 2010). Those who believe that diseases are not separable from supernatural forces may tend to pursue spiritual treatment. Rutebemberwa et al., (2013) proposed that “cultural beliefs manifest in the way people interpret illness and seek treatment, especially when they do not have adequate explanation for the symptom or the condition” (Rutebemberwa et al., 2013).

The scientific medicine on the other hand is rooted in the Western culture and philosophy in which “there are certain regular and identifiable modes of action and behaviour which persists regardless of the particular personnel” (Twumasi, 2005). Diseases that are perceived as not associated with supernatural causes are therefore likely to be managed with scientific medicine by some individuals in Ghana (Twumasi, 2005).

The existence of these two perspectives on diseases in Ghana defines where a patient is likely to seek medical attention in illness situation (Twumasi, 2005; Assimeng, 2010).

With these perceptions in mind, now let us look at some specific research studies which have been conducted in Ghana and outside Ghana around these health beliefs.

In one of such study De Graft Aikins and colleagues in 2012 set off to explore knowledge of participants on chronic diseases, their causes as well as treatment in Accra and two rural settings in Ghana. Data were collected through interviews and focus group discussion and analysed using qualitative research software Atlas-ti (De Graft Aikins et al., 2012b).

Findings indicated that participants' knowledge on chronic diseases centred on diseases such as diabetes, hypertension, cancers, AIDS, epilepsy, Sickle Cell Diseases and Heart Diseases in general. These diseases were categorized as chronic diseases by the participants in both the rural and urban settings in Ghana. Some of the participants defined chronic conditions as "incurable conditions and conditions which doctors cannot cure" (De Graft Aikins et al., 2012b). Other participants also noted that "chronic conditions can only be managed but not cured" (De Graft Aikins et al., 2012b).

The chronic disease causal factors mentioned by the participants were around poor lifestyle such as smoking and drinking of strong drinks like alcohol, sedentary lifestyle which is associated with less physical activity. It was also noted in the study that factors such as hereditary gives rise to diseases such as epilepsy, SCD and diabetes because of family links (De Graft Aikins et al., 2012b). Other factors included "environmental pollution" such as "dirty surroundings", "choked gutters and stagnant waters", "physical interruptions" which are associated with congenital malformations or anomalies. In addition "poor diet" such as "consumption of sugar", "fat, starchy" and "foods containing westernised ingredients" may cause diseases such as diabetes and hypertension (De Graft Aikins et al., 2012b). They mentioned that "toxic food" can cause diseases such as cancer. Emotional factors such as "anxiety" as a result of poverty were also mentioned by the participants as contributing to conditions such as hypertension and mental problems (De Graft Aikins et al., 2012b).

Spiritual causes of chronic diseases were mentioned by all the participants in their study, as responsible for diseases such as diabetes, hypertension, cancers, AIDS, epilepsy, Sickle Cell Diseases and Heart Diseases.

Generally, it was perceived that chronic diseases are treated spiritually as participants noted that such diseases come from supernatural powers (De Graft Aikins et al., 2012b) and as such interventions must be sought from them. This is similar to what Assimeng (2010) and Twumasi (2005) had earlier identified in their studies in Ghana that “treatment of spiritual diseases in Ghana are based on social analysis, a process in which the traditional healer seeks to analyse the possible causes and treatment of illness from social and supernatural realm” (Twumasi, 2005, p. 28). In such situations, the traditional healer performs formalities or rituals to pacify and get cleared of the spirit which is perceived to be causing or triggering the disease condition (Twumasi, 2005).

In another study, Owusu-Daaku and Smith (2005) looked at the health seeking behaviour of Ghanaian women residence in London and those in Kumasi. Through snowballing technique these women were identified in the two cities to be part of this study. In all 16 Ghanaian women who could speak either Twi and/or English language living in and around London took part in the study. In Ghana, 18 women resident in Kumasi were sampled for the study. Data were collected from these women through the use of semi structured interview guide and themes identified from the interviews later.

Respondents in both settings in their responses on perceptions of health and causes of diseases responded in the same way but there were some differences in their beliefs regarding causes of diseases and perceived treatment options.

Ghanaian women in London attributed disease conditions to lifestyle factors such as stress, tiredness, poor diet, poor hygiene as well as lack of exercises (Owusu-Daaku and Smith,

2005). Extreme weather conditions in the United Kingdom were also noted by the Ghanaian women in London as factors which may lead to health problems. In addition, they also mentioned factors such as ageing and hereditary factors causing diseases such as SCD and asthma.

However, the Ghanaian women in Kumasi pointed out that diseases come about because of poor diet due to poverty which was noted as the major cause of diseases. Similarly, the women in Kumasi noted that diseases occur due to tiredness, aging and hereditary reasons, stress, poor quality of drinking water, poor personal hygiene and as a result of general poor environmental sanitation (Owusu-Daaku and Smith, 2005).

It is interesting to note that, witchcraft and supernatural factors were strongly mentioned by Ghanaian women in Kumasi as factors responsible for disease conditions which do not respond to hospital treatment the “scientific medicine” (Owusu-Daaku and Smith, 2005). Factors such as “evil eye”, “spiritual forces” (Owusu-Daaku and Smith, 2005, p. 72) were identified as factors which play significant role in the causation of diseases attributable to spirits, such as tuberculosis, AIDS and diabetes and cancers (Owusu-Daaku and Smith, 2005). Prayers and reliance on God was stressed by Kumasi women as vital for the management of disease conditions that are attributed to spiritual factors (Owusu-Daaku and Smith, 2005). However the Ghanaian women resident in London did not point out supernatural factors as causes of disease. They noted that such beliefs are associated with people in Ghana (Owusu-Daaku and Smith, 2005). The two groups however agreed that Ghanaians in general delay in seeking professional advice on time when there is disease condition until the condition becomes serious. “These were attributed to perceptions and actions in Ghana” (Owusu-Daaku and Smith, 2005, p. 73).

There are similarities and differences in the findings of the two studies, De Graft Aikins et al., (2012b) and Owusu-Daaku and Smith, (2005). The respondents in the two studies believe in the external factors such as supernatural forces being responsible for many diseases including diabetes. Treatments of such conditions also reside in the spiritual world (Owusu-Daaku and Smith, 2005; De Graft Aikins et al., 2012b). In the two studies, these perceptions were link to participants who were resident in Ghana. Their perceptions regarding supernatural causes of chronic disease may be due to the cultural orientation in Ghana, as in most cases Ghanaian people tend to link occurrences of events and disease conditions to supernatural forces (Danquah et al., 2012). However among the Ghanaian respondents resident in London, in Owusu-Daaku and Smith (2005) study, it was noted that they did not attribute spiritual causes to diseases as a result of cultural orientation they experienced in Britain. Other factors such as hereditary overlapped in the two studies as responsible for certain conditions which are perceived to run in families such as diabetes and asthma (Owusu-Daaku and Smith, 2005; De Graft Aikins et al., 2012b). Similarly, all the different groups in the two studies also indicated that diseases including diabetes result from poor diet and lifestyle in general as well as psychological or emotional problem (Owusu-Daaku and Smith, 2005; De Graft Aikins et al., 2012b). Whereas Owusu-Daaku and Smith, (2005) categorized lifestyle factors as stress, tiredness, poor diet, poor hygiene and lack of exercises, De Graft Aikins et al., (2012b) placed lifestyle factors under smoking, drinking of alcohol, sedentary activity, and consumption of too much sugar. However, stress as a factor for disease causation was perceived to result from poverty by the Kumasi residents in Owusu-Daaku and Smith (2005). Ghanaian respondents in Owusu-Daaku and Smith (2005) and De Graft Aikins et al., (2012b) attributed diseases to poor environmental sanitation and pollution, poor personal hygiene, presence of mosquitoes and poor hygienic conditions of food vendors, poor drainage systems and stagnant water which promotes mosquito breeding. These were

not mentioned by the Ghanaian respondents in London where hygiene practices are better than what pertains in Ghana (Owusu-Daaku and Smith, 2005). Respondents in the two studies Owusu-Daaku and Smith (2005) and De Graft Aikins et al., (2012b) postulated that weather conditions, in the two geographical areas contribute to diseases in many cases. Diseases associated with weather changes included asthmas and pneumonias during cold conditions and cholera in the wet season (De Graft Aikins et al., 2012b); however Owusu-Daaku and Smith (2005) did not give specific examples in the London study.

Opoku, Benwell and Yarney (2012) also studied knowledge, attitude, beliefs, behaviour and breast cancer screening practice in Ghana in two urban settings. The study used both qualitative and quantitative approaches in which questionnaire were administered to 474 women for information on breast cancer as well as breast cancer screening practices. In addition semi-structured interviews were used to collect data from 10 breast cancer patients, 10 attendants from the breast cancer clinic, 3 oncologists involved in breast cancer treatment in Ghana and 2 traditional practitioners who were herbalist who perceived to have a cure for breast cancer (Opoku, Benwell and Yarney, 2012). Data was analysed using constant comparison technique (Opoku, Benwell and Yarney, 2012).

Findings demonstrated that respondents associated fear with breast cancer due to imminent death especially when one undergoes surgery. This is due to the fact that most of the patients with breast cancer in Ghana report in late stage which is likely to result in death soon after surgery. Breast cancer was also attributed to the supernatural forces and other factors such as breast cancer is developed when individuals place “coins in their brassieres” (Opoku, Benwell and Yarney, 2012). This was seen as a risk factor for the development of breast cancer in women. Most of the participants relied significantly on God and Divine intervention as well as prayers for protection and healing of their breast cancers. One patient in their study

noted that “God’s intervention is the only means that protection from the disease can be achieved” (Opoku, Benwell and Yarney, 2012).

One of the herbalists who took part in their study proposed a connection with the cause of the condition “Cancer is “Obosam disease” which literally means “Cancer is a devil’s disease” and for which doctors are unable to treat” (Opoku, Benwell and Yarney, 2012). A second herbalist also mentioned that cancer is a “supernatural disease” which can only be treated by relying on spiritual forces as scientific medical practitioners cannot treat because they have no spiritual powers (Opoku, Benwell and Yarney, 2012). However, one physician oncologist in the study noted that, some people perceive that breast cancer “is an act of God”, “a family disease”, an act of devil”, or “a curse” and others see the condition as a “fault of someone” (Opoku, Benwell and Yarney, 2012).

Major sources of health information used by the respondents included radio, television and newspaper, however due supernatural explanations used by traditional healers to inform patients about sources of certain conditions including cancers, herbalists as well as spiritualists have become central healthcare channels used in Ghana to spread health information (Opoku, Benwell and Yarney, 2012).

Generally, it was found that, there was feeble association between participants’ level of education and participants self-reported knowledge regarding breast cancer as they showed knowledge deficit on causes of breast cancer and breast cancer screening. However, individuals with higher levels of education showed a higher level of knowledge regarding the disease and breast cancer screening (Opoku, Benwell and Yarney, 2012). These are in line with an assertion by Owusu-Darku and Smith (2005) that education is seen as a determinant of people’s believes and behaviour.

Similar to the studies reviewed above, a qualitative study through focus group discussion in eastern Ugandan, on perceptions of diabetes, revealed that diabetes was perceived to be caused when the affected person coughs and transmits virus to other people (Rutebemberwa et al., 2013). Participants of the study comprised 8 focused group members from the community without diabetes as well as four focused group members with diabetes mellitus. Data was analysed using content analysis. It was also found that in addition to using or sharing food utensils of the affected person and sitting close to the affected person, individuals can easily contract diabetes mellitus (Rutebemberwa et al., 2013). In this sense, it was perceived that diabetes is contagious. In my opinion as a researcher, these perceptions may lead to stigmatization as it may be likely that other patients may not sit closer to diabetics when they go for treatment at the hospital. It may be very necessary to educate people on how diabetes is developed in order to disregard the perception that diabetes is an infectious disease, which may result in decreased stigmatization.

In addition, the participants thought that fat consumption in excess leads to diabetes mellitus. It was also noted that diabetes can be given out by witches in which case treatment is through spiritual means (Rutebemberwa et al., 2013). Some of the participants also perceived that diabetes can only be cured through the use of herbs as it was perceived that herbalists have spiritual powers to communicate with spiritual realm for spiritual intervention of such conditions (Rutebemberwa et al., 2013).

These researchers, Opoku, Benwell and Yarney (2012) and Rutebemberwa et al., (2013) set off to study cancer and diabetes respectively in different geographical locations, but the findings show similarities and differences. Respondents in both studies agree on spiritual causes of chronic diseases as both studies attributed cancer as well as diabetes to supernatural forces for instance, where cancer was perceived to have originated from a devil as “Obosam

disease” meaning “devil’s disease” (Opoku, Benwell and Yarney, 2012). Similarly, diabetes was seen as having its source from bad spirits as it was perceived that such conditions are only treatable by spiritualist because of their powers to see beyond the physical disease (Rutebemberwa et al., 2013). Though, the two studies looked at the spiritual causes of the two conditions, cancer and diabetes respectively, Rutebemberwa et al., 2013) did not attribute diabetes specifically to an “act of God” and “act of devil” or “a curse”, it is only Opoku, Benwell and Yarney (2012) who noted such perceptions.

The two studies however agree on the spiritual treatment of both diabetes and cancer as the two conditions were perceived to originate from the spiritual world. For example some participants depend meaningfully on God’s protection for cure of their breast cancers as well as the use of other supernatural powers to manage diabetes (Opoku, Benwell and Yarney, 2012; Rutebemberwa et al., 2013).

However, the two studies gave other different factors responsible for causes of diabetes and breast cancer. Breast cancer was attributed to coins being placed in brassieres of individuals (Opoku, Benwell and Yarney, 2012) whereas diabetes is caused through infection either as an airborne disease, sitting closer to a person with diabetes or using the same bowl that has been used by a diabetic (Rutebemberwa et al., 2013).

A critical examination of the four major studies reviewed, Owusu-Daaku and Smith (2005), De Graft Aikins et al., (2012b), Opoku, Benwell and Yarney, (2012) and Rutebemberwa et al., 2013) indicate that, there is common perception or belief which runs through all these studies irrespective of the disease condition under investigation. Respondents in all the studies indicated that chronic diseases are perceived to be attributed to supernatural forces and that treatments for such conditions are located in the spiritual domain (Owusu-Daaku and Smith, 2005; De Graft Aikins et al., 2012b; Opoku, Benwell and Yarney, 2012;

Rutebemberwa et al., 2013). However, specific and other different causes were found in each of these studies reviewed.

In summary, the researcher has examined studies on health beliefs of patients with chronic diseases such as diabetes and how such perceptions affected their health seeking behaviours in the context of Ghana and outside Ghana. Generally, it was noted that patients who believe that illnesses cannot be detached from supernatural spirits may be likely to follow mystical actions (Danquah et al., 2012). On the other hand, diseases that are associated with Western culture such as diseases with acute manifestations, which may not be perceived to be linked with supernatural sources, are likely to be managed using scientific medicine (Owusu-Daaku and Smith, 2005; Danquah et al., 2012). These are two driving forces operating in Ghanaian context in particular and in sub-Saharan Africa in general in terms of health seeking among people (Twumasi, 2005; Assimeng, 2010; Danquah et al., 2012).

The next section looks at the personal experiences and perspectives of the researcher and how these helped to focus this study. The researcher's perspectives were focused on his experiences as a professional nurse, lecturer, researcher and as a Ghanaian, ending with a major section on the researcher's and research motivation for this study which examined specific challenges type 2 diabetics face within the socio-cultural environment like Ghana.

1.3 How Personal Experiences and Perspectives as a Nurse, Lecturer, Researcher and Ghanaian Helped Focused this Study

As a nurse, the researcher has come to this research with experiences working with patients with chronic diseases such as diabetes mellitus and other chronic as well as diseases in general, regarding their health beliefs and practices. For example, family members requested for discharge of a patient because they wanted to perform rituals to rescue the patient on

account that the patient's relative was alleged to have swallowed the whole body of the patient on admission up to the neck area in a spiritual manner. Therefore rituals needed to be performed at home in order to save the patient in question, hence the need for her discharge from the hospital. Similarly, the researcher nursed a patient in the medical ward in 1999 with pneumonia who also requested to perform rituals at home, because her chest pains was not responding to treatment that was given at the hospital. Several of such examples from the researcher's experiences may be given as a nurse.

However, as a nurse, the researcher has undergone professional training, and as such these patients' beliefs were not in line with my perceptions and professional orientation, so I had difficulties to allow them to go for such rituals at home and return to the ward for further treatment. Even, if it was possible for me to allow them to be discharged from the hospital by the doctor, they had to write discharge letters against medical advice under strict discussion to safeguard myself and nursing profession as a senior nurse in my previous hospital.

As a lecturer in nursing, there have been several instances that the researcher discussed health beliefs of patients with his students when certain disease conditions were discussed in class. For example, patient's perceptions with regards to diseases such as diabetes, shingles, tuberculosis, malnutrition, cancers and similar conditions, as well as sickle cell disease. For example meanings are attached to these conditions by Ghanaian people; therefore such meanings are discussed with students in class. However, some of these discussions were taken for granted, and no importance was attached to them during our discussion. The researcher just wanted the students to know social meanings given to these diseases so that they can communicate with the people who hold such perceptions regarding such conditions.

The researcher identified that patients have varied perceptions about disease conditions in Ghana and also elsewhere. For instance, as the researcher started reading around in this

research on diabetes in Ghana and elsewhere in Africa and other places, there are lot of lay perceptions such as diabetes as a spiritual disease and so treatment should be spiritual inclined (Owusu-Daaku and Smith, 2005; De Graft Aikins et al, 2012b; Opoku, Benwell and Yarney, 2012; Rutebemberwa et al., 2013).

Now, with the Ghanaian identity, the researcher believes in supernatural forces and other perceptions of disease causation and therefore, the researcher succumbs to spiritual treatment including the use of prayers as an intervention. As a Ghanaian, the researcher believes that family members can cause diseases to other family members through spiritual means. As a Ghanaian, when certain diseases do not respond to medical treatment, the researcher begins to look elsewhere for spiritual interpretation of the condition, either in the church or at another spiritualist camp and similar places.

Now, the researcher's experience as a nurse, lecturer, researcher and being a Ghanaian cannot be separated from this research in order to care for these patients. Their coping with diabetes cannot be comprehensively taking into consideration without their perceptions. Through the researcher's experience working with these patients as a nurse, lecturer, researcher and as a Ghanaian, the researcher has now come to learn that their perceptions must now be incorporated into their care. Now, through what I have learnt as a nurse, lecturer and a researcher, I see beyond diabetes as a disease condition with clinical manifestations. There are other components of diabetic sufferers which must be taken care of in the management of their chronic disease, including their perceptions about the disease, experiences living with the condition and reaction as well as beliefs apart from their clinical management of the condition. For instance if the researcher is giving them medication for the treatment of diabetes and other chronic conditions, the researcher should also allow them to pray as well as they believe also in prayers as part of management. So to be able to manage this condition

and to help these patients to make sense of their diagnosis, we need to bring all these perceptions together to enable the patient to feel that their views, however unusual, are valued and make a contribution to the plan of care.

Now, as a lecturer, having realised the importance of including patients' lay beliefs in their care, the researcher, tries to inform his students during lectures periods that, there is the need to treat patients taking into consideration their health beliefs and practices. The researcher always tells his students that this aspect of care for patients is what is lacking in Ghanaian healthcare system. The researcher would be very happy one day when this care model for Ghanaian patients is identified and utilized.

The researcher initially thought that studying coping strategies of patients was just going to be simple by asking the patients to tell their story, but upon reading around the concept of coping, and cultural health beliefs of population, and also examining the cultural background of participants in the context of Ghana and taking into consideration challenges faced by these people, and upon looking at my own experiences with patients, this study has actually influenced my thinking about how to care for them.

The subsequent section looks at specific challenges type 2diabetics newly diagnosed face living with the condition within the above socio-cultural environment we have discussed above. Therefore the need of the researcher to examine their coping experiences living with the condition in the above socio-cultural domain. Having studied their socio-cultural backgrounds in the previous section, the next section looks at specific challenges that these people have which have motivated the researcher as additional impetus to conduct the current study.

1.4 The Researcher and Research Motivations

Individuals who are diagnosed with diabetes in Ghana are confronted with many challenging issues, such as high cost associated with the treatment of the condition, and stigma. In Ghana, persons diagnosed with diabetes who have reduced in body weight are stigmatized as having HIV/AIDS. Patients are also faced with anxiety and fear related to the unknown trajectory of the disorder. Anecdotal evidence from discussions with patients while working in clinical practice as a nurse, include comments such as “once someone has the condition, the person will not live longer than ten years”. This belief clearly leads people who are diagnosed as having diabetes mellitus to become fearful and anxious as they attempt to manage what they perceive as being severely life limiting condition in a context of resource poor and inadequate health care facilities.

As a nurse working clinically, there have been occasions whereby people who have received a diagnosis of diabetes mellitus, and who reside in the same community have raised issues such as sexual dysfunction, visual impairment, general bodily weakness and lower extremity pains. Other patients made personal approaches, not necessarily about their complaints about the condition of diabetes, but to try to guarantee to secure drugs from the hospital on their behalf as it was known to the patients that this was where the researcher worked. Clearly these patients could not afford to pay their hospital bills. One such patient remarked “I have used all my monies on insulin injections. Even the money to buy food to feed my children is not available. I need your help as a senior nurse in this hospital”. I have seen newly diagnosed diabetic patients weep bitterly at the hospital at diagnosis as they realise that their lives are about to become more fraught with difficulties than they had envisaged. Furthermore, the news of their diabetes was reported as unexpected with patients

commenting that “they never thought they would get diabetes mellitus in their lives because of how difficult it is to live and manage this condition”.

In a former hospital where the researcher had worked for six years, patients were observed attending the hospital almost every week for reviews of their deteriorating condition with diabetes mellitus. Furthermore, throughout ten years of professional practice as a nurse and more recently as a lecturer in a School of Nursing, maintaining some clinical practice, patients have been witnessed to have lost their eyesight or had limb amputated as a result of poorly managed diabetes mellitus. Patients have been witnessed dying in the emergency room and other wards due to hypoglycaemia or hyperglycaemia and many diabetes related health complications. Through continuous interactions with these patients and by sharing their experiences, the constant question is one of how patients are able to cope with the challenge of being newly diagnosed with a costly condition which they perceive as having a poor outcome. The implications for self-management of diabetes, in this group of patients at least, are such that strategies for health education may be less than effective, in a context where patients have pre-determined attitudes and beliefs about the condition, its trajectory and outcome. A further question, and one of extreme importance in the context of professional nursing practice and nurse education, is how effectively health care professionals can help those patients to live productive lives and to successfully manage their diabetes mellitus.

The subsequent sections focus on the purpose of the current research, problem statement and the research questions with their respective rationale.

1.5 The Purpose of the Research

In light of the above this study aimed to explore how patients, newly diagnosed with type 2 diabetes, cope with the condition, in order to inform nursing practice, nurse education, and healthcare policy makers of how best to facilitate successful self-management of the condition, and thus contribute to the productive lives of this particular group of patients. The study aimed to identify the coping strategies employed by patients with type 2 diabetes, as they attempt to manage problems associated with the condition. The study also aimed to explore how patients could be assisted to cope effectively with ensuing and on-going problems associated with type 2 diabetes mellitus.

1.6 Statement of the Problem

Diabetes mellitus has been shown to be increasing in prevalence, subsequently posing many challenges to patients who are diagnosed with the condition (Mennen and Mbanya, 2000; International Diabetes Federation-Diabetes Leadership Forum Africa 2010; Mbanya et al., 2010). From an anecdotal perspective as a practice nurse and a lecturer in a nursing school comes a suggestion that patients diagnosed with diabetes suffer from a form of `diabetes-related distress` such as frustration, anxiety, anger, and fear of being stigmatized.

Furthermore, patients are concerned to know how to cope with self-management within the context of their preferred and long established lifestyle. Micro and macro complications of the disease, high treatment cost associated with a long term condition, and worries around how to integrate diabetic treatment into daily life have all been observed as essential areas of concern for patients in Ghana. This study therefore set out to investigate the coping strategies of newly diagnosed patients with type 2 diabetes.

Now, with the above background, let us consider the following research questions with rationale.

1.7 Research Questions with Rationale

The research questions were postulated in order to address the problem identified above:

1. What are the coping strategies employed by patients newly diagnosed with type 2 diabetes mellitus?

In the background of this study, the researcher tried to look at the challenges that patients newly diagnosed with type 2 diabetes experience. Having identified these challenges, the researcher, kept on asking himself, how these patients in the midst of such challenges manage their diabetes. For instance in the background, problems such as payment of hospital bills, stigma and fear of death and complications associated with the condition were mentioned. There was therefore the need to ask their coping approaches that are used to deal with the challenges.

2. What are the 'lived experiences' of patients newly diagnosed with type 2 diabetes mellitus?

The researcher asked this question in order to identify different domains of challenges that were experienced by the patients newly diagnosed with type 2 diabetes mellitus. Living experiences of the type 2 diabetics were anticipated by the researcher as definitely going to contain patients' challenges but in different domains, so that their respective coping methods would be examined.

3. What are the perceived causes of diabetes mellitus from the perspectives of patients newly diagnosed with type 2 diabetes mellitus?

In the background section above, the researcher identified socio-cultural environment in which these patients live, which is likely to affect their health seeking and coping behaviours in general, therefore the need to ask this question to find out the effect of their perceptions on the causes of type 2 diabetes and coping.

4. What meanings do patients, newly diagnosed with type 2 diabetes, attach to the diagnosis?

Patients' perceptions and experiences with a particular disease condition influence meanings that are attached to the condition in question. For instance if patients see the condition as a threatening condition, patients may attach some specific meanings to it. Similarly, certain social names are given to some conditions based on how patients spend on the condition. These may affect the way patients will seek treatment as well as their coping approach for that particular condition.

5. How do patients, newly diagnosed with type 2 diabetes, react to the diagnosis?

As part of living with any chronic condition with challenges, patients may be likely to react to these challenges as well as reacting to the diagnosis of a chronic condition for the first time on hearing the news of their diagnosis. The way people react may also affect their coping styles, therefore the need to ask this question.

6. How can patients, newly diagnosed with type 2 diabetes be assisted to live productive lives, cope effectively with the problems associated with diabetes mellitus, and self-manage the condition?

This question is about the summary of all what have been asked from research question 1 to 5, as their aggregate meaning is to find out how the overall findings of this study will be used to support patients newly diagnosed with type 2 diabetes mellitus. In other words, this question is about the overall utilization of the findings of this study. Now, let us look at the decision why patients only were chosen for this study.

1.8 The Decision to Choose Patients Only for this Study

In a research work, the choice of participants or sample is grounded on the principle that, the selection of the participants involved should allow the researcher to collect the appropriate data for the study, in so doing permitting the researcher to achieve the research goal or aim

and purpose (Saunders, 2012). The background information have clearly indicated that type 2 diabetics have certain challenges such as physical, social, psychological, economical as well as physiological disruptions living with type 2 diabetes mellitus. Other challenges were also identified associated with these individuals. As patients experiencing these encounters or challenges, these were quite unique to them as compared with some individuals without the condition. In some sense, the diagnosis of a chronic condition such as type 2 diabetes affects the routine activities of the sufferer, which Bury (1982) referred to as “biographical disruptions”, which under normal circumstances, a person without a disease condition or challenges may not be likely to experience. Having this in mind, it may be therefore difficult to study coping strategies of people without disease conditions or challenges. Patients with type 2 diabetes were identified as people who have lived and continuing to live with the condition and therefore have experiences to share with the researcher, hence the choice of this group of participants for the current study. They were the people with the requisite knowledge to be interviewed for data in this thesis as the right or appropriate research participants are likely to give rich data for the thesis (Saunders, 2012).

The research questions in the previous section point to the researcher the research methods which may be used for this study. The subsequent section therefore throws introductory light on hermeneutic phenomenological approach to qualitative research which seems capable of addressing these research questions.

1.9 Addressing the Research Questions

Hermeneutic phenomenological approach to qualitative enquiry is very useful in exploring individuals’ experiences and perceptions from their own life world. In this research total

bracketing of the researcher was not possible as setting aside the researchers' own presuppositions would not be beneficial during the explanation of the participants' experiences as lived in their own world (Van Manen, 1990), and that it is unrealistic and impossible for researchers to bracket their suppositions as they persistently relate with the world in which they live (Rapport and Wainwright, 2006). A hermeneutic phenomenological approach to qualitative research therefore appeared appropriate to explore the coping strategies of newly diagnosed patients with type 2 diabetes mellitus in Ghana. Qualitative methods consisting of in-depth interviews were used to generate information and insight from the study participants. Data were collected from newly diagnosed patients with type 2 diabetes mellitus between August and October 2009 (Chapter Three). Data collection and analysis proceeded simultaneously. Data were analysed using Creswell's (1998) approach, which provided a rich description of the essential structures of the phenomenon under study (Chapter Three).

The following section examines power differentials between the researcher and the research participants, ending with how the researcher tried to reduce this phenomenon in this qualitative research.

1.10 Power Imbalance: A Senior Nurse Interacting with Type 2 Diabetics; How Power differentials were reduced during the study

In qualitative research, the issue of unequal power relation between the researcher and the research participant is an important issue for discussion. It is also equally important in the discussion to find ways and means to address this power imbalance between the researcher and research participant during a research process.

Karnieli-Miller, Strier and Pessach (2009), noted that there are power relationships at various phases of research investigation. It was noted that each of these stages has different aims or

purposes to the extent that each of these aims shape the individual roles of the researcher or the research respondent and that the research process gives rise to power relations (Karnieli-Miller, Strier and Pessach, 2009). For example, in the initial stage of research where participants are recruited, the overall research investigation is usually under the control of the researcher, who makes the research study known to the prospective participants. At the same time it is the researcher who decides and describes the research goals and objectives as well as the purpose to the research participants, and makes known the official affiliations and associations of the researcher to the participants in order to gain their cooperation (Karnieli-Miller, Strier and Pessach, 2009). The main aim of the researcher at this stage is to encourage the prospective participant to take part in the study and to share the personal experiences and knowledge that they have about the phenomenon being studied. At this level both the researcher, who controls the information regarding the study, and the participants, who possesses the knowledge and experience required to accomplish the study, can employ their individual powers to “negotiate” the degree to which information is offered about the research study (Karnieli-Miller, Strier and Pessach, 2009). However, researchers experience different echelons of “power and powerlessness” (Das, 2010) at various stages of research, similar to what Karnieli-Miller, Strier and Pessach (2009) pointed out in the recruitment stage of research but Karnieli-Miller, Strier and Pessach (2009) saw the need for “negotiation” on the side of the researcher and the participant. According to Das (2010), “powerlessness” was experienced during the recruitment stage of the participants and was concerned about possibility of trailing their curiosity or interest of the research. Conversely, according to Bravo-Moreno (2003) as cited by Karnieli-Miller, Strier and Pessach (2009), “the amount and quality of the information offered regarding the research are entirely at the researcher’s discretion or preference” (Karnieli-Miller, Strier and Pessach, 2009, p. 282).

Another stage by Karnieli-Miller, Strier and Pessach (2009) where power relations is manifested during research is data collection. According to Karnieli-Miller, Strier and Pessach (2009), at this stage the research participant seems to control and have access to the data. The researcher on the other hand is reliant on the research participants for their experiences and knowledge. It is noted that the amount of data that is given to the researcher at this stage depends on the type of interaction and relationship between the researcher and the participants.

From a different perspective, Grenz (2005) noted that “power is fluid” and it is not owned by the researcher or the research participant and that it may not be likely to theorize power from this angle. Grenz (2005) examines this power shift between the researcher and the participant and advocates that this shift or movement is determined by the different stands that the research investigator and the research participants take during their interaction on the research which consequently may determine the type of data as well as the findings of the study (Grenz, 2005). What Grenz (2005) is saying is similar to the issue of “negotiation of power” between the researcher and the participant as noted by Karnieli-Miller, Strier and Pessach (2009) where the researcher and the research participant have different roles in the research encounter that determines the “negotiation of power” in their discussion or dialogue. According to Karnieli-Miller, Strier and Pessach (2009), one approach which helps researchers to get rich and quality data from research participants is to establish rapport with the research respondents during research investigation. There are different techniques of rapport establishment which have been recommended such as “self-disclosure”, “sharing a meal” with the participants (Dikson-Swift et al., 2006) as cited by Karnieli-Miller, Strier and Pessach (2009, p. 282) or “faking friendship” with respondents (Duncombe and Jessop, 2002, p. 107). However, according to Karnieli-Miller, Strier and Pessach (2009) these techniques of

establishing rapport seem to be “camouflaging” as they appear to “manipulate or exploit or abuse” the research participant in order to obtain data required for the study.

However, it is noted that when rapport is established with research participants, it is likely to increase their cooperation and participation which is likely to ensure collection of rich data (Kraye, 2003). In this sense, the establishment of rapport, through warm, caring and empowering interaction between the researcher and participant in qualitative interviews may cover power differentials.

In this current research, the researcher definitely observed power differences as the researcher and the research participant were on different levels. There was some kind of “distance” between the researcher and the participant because as a senior nurse in the hospital where the researcher worked patients saw him as a power figure, not that they “feared him” but there was “master-subordinate” relationship which existed.

In the opinion of the researcher, power differentials between the researcher and the research participant was likely to result in two major effects. One, there was possibility of the research participants to tell the truth and everything they knew about the phenomenon under investigation because they have the experience and knowledge about the phenomenon under investigation. Second, it was also possible for them to tell lies to the researcher because of “fear” of the researcher secondary to power on the side of the researcher. This is because; in some cases participants may perceive that revealing the truth is likely to affect them, probably in their treatment. Though research interviewing is not an interrogating process, if participants are not approached in the best way, they may lie to the researcher because of power differences (Blair, 2005). This is because an investigation or a research interview is non-accusatory dialogue or discussion but used to develop information that is significant or relevant to a case (Blair, 2005), and so interviewing in research needs special tactics.

In this current study, the researcher anticipated power differences between himself and the research participants. This is because as patients, probably they perceived that the researcher was aware of their disease conditions and how it affects them. Therefore, there was tendency for the participants to tell exactly what they thought the researcher knows about them.

Conversely, there was propensity for the research participants to tell lies to the researcher as they might have not recognized the importance of the research to them. Way (2013) however noted that research participants may decide to give unnecessary information to researchers when there is research fatigue.

Having anticipated these challenges, the researcher approached this current study with careful and tactful explanations to the research participants regarding what this research was all about. In all these interactions with the research participants, it was necessary on my part as a researcher to establish appropriate rapport and to build trust. According to Abbe and Brandon (2014), rapport has meaningful influence on interviewing, “as a smooth, positive interpersonal interaction, rapport can increase the amount of information provided by witnesses, increase trust and produce more cooperation, and faster agreement in negotiations” (Abbe and Brandon, 2014, p. 207). The establishment of appropriate and good rapport may be possible to make the respondent comfortable and able to complete the entire interview. This is because certain questions which may appear personal or even embarrassing are likely to be answered when good rapport is established (Fowler and Mangione, 1990; Reis and Judd, 2014).

On this note, in order to avoid power differences between the researcher and the participants, the researcher introduced himself to the research participants even to the extent that my home town was disclosed, which is in the same region, so that they could see me as one of them. The researcher also introduced himself as a former nurse in the hospital, who has treated some of them before. The researcher also speaks fluently in the local language, which was an

added advantage, as they felt comfortable speaking with someone who could speak their own language in a similar intonation. In the participants' homes, traditionally, the researcher drank water which was served to him in his interactions with them, which signified that the researcher was welcome to their homes (Assimeng, 2010), before they asked about the mission of the researcher. Understanding their cultural practices and taking part was a way of "winning" them to take part in the research and this was based on rapport establishment.

In addition, it was necessary for the researcher to tell the research participants, the importance of the research and what the researcher was looking from them. The researcher explained the significance of the research to their understanding, so that they could know how the research findings would improve the wellbeing of diabetics. The researcher explained to them that understanding their coping experiences living with diabetes would help healthcare personal how to care for them. The researcher made it known to the research participants that, the ripple effect of this research was for them, so it was important to tell me the true picture of what they are asked and not to add to it.

The researcher also tried to avoid power difference by the way he presented himself to the participants in their homes. As rural folks, there was no need for the researcher to put on any "ostentatious or flamboyant" dress to their homes as that was likely to create some "distance" between the researcher and these rural folks, a form of power differential. The researcher tried to identify himself with them as rural folks in his dressings, which was simple and modest to avoid creating distance from them.

Additionally, the researcher conducted most of the interviews in the homes of the participants where the participants felt more relaxed with limited power variations to pour their experiences of living with diabetes. As part of rapport establishment, the researcher commenced interviews with simple interactive questions which centred on socio-demographic factors before the main questions followed (Fowler and Mangione, 1990).

These questions were intended to put the participants at ease by way of putting the researcher and the participant on equal plain for smooth interaction without power variations.

In terms of gender of the researcher and the research participants, there were power differences in favour of the researcher. Koivunen (2010) has noted that gender of a researcher has the tendency to influence the data collection procedure depending on the socio-cultural environment in which the research is conducted (Adjei Baffour, 2012). Traditionally, men in Ghanaian family systems are considered as heads of families and as such seen by society as controlling the family households in Ghana. This system reflects in men and women's interaction in Ghana whereby men tend to dominate women in many instances. For example the women's work, facsimile or reproduction and movements are usually controlled by men (Adjei Baffour, 2012). In addition due to the family system in Ghana, the man has the social obligation to earn and take care of the family whereas the woman is supposed to do basic work, see to the children, prepare meals for the man, and launder attires and dresses (Adjei Baffour, 2012). In this sense the nature of the social roles in Ghana places the woman in a lower position which obviously makes the man exhibits power and authority over the woman. Similar to what Adjei Baffour (2012) identified, Jayachandran (2015) has already noted that socio-economic forces and belief in inherent supremacy of males as factors or reasons that further deepen and expand the unequal power relations between men and women.

In the researcher's observation, there are several Akan Twi sayings in Ghana which denote the superior place of man in society. For instance there is a saying that "when a woman buys a gun, she places the gun in the man's room", which literary means that "the man is superior and has the courage to handle the gun instead of the woman". Similarly, it is a "man who swallows a bitter pill", which literary means, "a man should be brave and courageous". So the impression is that, there is male domineering in Ghanaian society, which gives perception of

“superiority” on the part of men as compared with the women. The researcher has noted that these differences in gender and power may be likely to make female participants feel “shy” or “nervous” or “fearful” in their responses to the interview questions during researcher-participant interactions. To minimise power differences due to gender variations, the researcher made them aware that they are very important as research participants and without them, the researcher would not get data. In view of this, a welcoming interaction was established with “respect and smiles”. This approach was important at any point of the interview process. It was also anticipated that due to the possible “inferiority complex” of the female participants, there was possibility for them to give short answers to the interview questions in order to leave the interview interaction early to prevent prolong session. Anticipating this, the researcher asked the female participants to allow their husbands or a significant other to be with them if they so wish during the interviews to boost their morale to speak without “fear” and “shyness”. As already noted in other sections of this chapter, rapport establishment was really important for the researcher to be in level terms with all participants, which enhanced data collection.

So far, the researcher has been looking at the power differences between the researcher and the participants and how these power differentials were reduced by the researcher.

The next section centres on anticipated research contributions that this study brings to bare.

1.11 Research Contribution

It is anticipated that this study will lead to a better understanding of forms of coping strategies employed by patients, newly diagnosed with type 2 diabetes in Ghana. It is envisaged that this increased insight should help nurses and other health care workers to understand these patients, in a more meaningful manner. The study will also inform policy

makers and health care planners to develop strategies for the management of diabetes as a long term condition. Furthermore, forms of coping strategies and other related issues of importance to patients, carers, and health care professionals working in a variety of health care settings and the therapeutic use of these will be of help in identifying areas for further research.

The following section considers the context for the research study, commencing with a brief overview of the country of Ghana and its consequent health care delivery system. The section culminates in a discussion regarding` what it is to be Ghanaian` as the cultural characteristics of Ghanaians may have a bearing on ways in which these newly diagnosed diabetics make sense of and negotiate life after the diagnosis.

1.12 Ghana

Ghana is a West African nation bounded by the Republic of Togo and the Cote d' Ivoire in the east and west respectively. Burkina Faso is located at the north of Ghana and to the south; the country is bounded by the Gulf of Guinea (Central Intelligence Agency, The World FactBook, December, 2013). Ghana Census Office estimated Ghana's population as 24.2 million in 2010 (Population and Housing Census) with a population growth rate estimated at 2.4 per cent (National Population Council, Ghana Population Stabilisation Report, 2011). The map of Ghana is found below, showing the major boundaries.

Ghana occupies a land surface area of 239,460km² (Central Intelligence Agency, The World FactBook, 5 March 2009). Ghana has ten administrative regions each of which is divided into districts, municipal assemblies or metropolitan assemblies with their respective districts, regional, municipal or metropolitan capitals (Government of Ghana Official Portal, 2013). Cocoa is the main cash crop for Ghana. Other non-traditional cash crops include pineapple, mangoes, coconut, pepper and cashews. Basic and staple foodstuff available in Ghana is cassava, plantain, yam, cocoyam, corn, rice and millet for local market consumption and international trade.

The coastal and middle portions of Ghana are densely populated compared to the more sparsely populated regions in the north. The factor which partially accounts for this difference in population density is that most of the factories in Ghana are located in the south and middle belts and therefore many young and active people from the poor areas of northern Ghana migrate to the south. In addition, lands in the north are not arable as compared with the fertile lands in the south and middle belts which attract large number of farmers from the north to the south (Van der Geest, 2011). The administrative capital of Ghana, Accra is on the coast.

1.13 Health Care System in Ghana

The Ministry of Health (MOH) plays a dominant role in health care provision in Ghana. Governmental activities in healthcare are augmented by churches, other religious bodies and private health care providers (van den Boom, Nsowa-Nuamah and Overbosch, 2004). The Ministry of Health is responsible for policy formulation and planning in terms of health delivery in Ghana. It is also in charge of infrastructure and human capital development in the health sector. The Ghana Health Service (GHS) is the governmental body responsible for the implementation of the policies developed by the Ministry of Health. The Ministry of Health's

groupings of healthcare service delivery in Ghana are categorised at the levels of the community health post, health centres and clinics, the district or municipal hospital, the regional and tertiary hospital (Ghana Health Service (GHS), 2013). The hospital used in the present study serves as a municipal hospital. This hospital has a diabetic clinic attached to it to meet the health needs of diabetics in the municipality and beyond. The reason to investigate in this hospital is the fact that most diabetes research studies in Ghana are carried out in the countries' big hospitals such as the Korle-Bu Teaching Hospital in Accra, Komfo Anokye Teaching Hospital in Kumasi and other similar ones along the coastal areas of Ghana, where the population is high. Equally, the voices of patients in this Ghanaian hospital should be heard about their coping strategies in order to inform healthcare professionals as to how to care for these patients. The hospital is situated in rural setting which seems to me that patients here may have different behaviours as compared with their counterparts in the urban centres. Therefore, the need to choose this hospital for the study.

Just as in other African countries, traditional medicine enjoys high patronage in Ghana. It is estimated that about 80% of people in Africa utilize traditional medicine to treat various disease conditions and also to prevent numerous clinical problems (WHO, 2003). Adjei (2013) pointed that about 70-75% of Ghanaian people employ traditional medicine to take care of their primary healthcare needs. To buttress this point, Twumasi (2005) noted that, Ghanaian people affected with chronic disease conditions usually commence treatment with traditional medical practitioners; however, the decision to continue with treatment depends on the progress and response to treatment, just as patients can shun the scientific medical practitioners if they are not satisfied with their treatment and services.

1.14 Access to Health Care Facilities in Ghana

Access to health care in Ghana is very poor in spite of governmental efforts to improve the healthcare delivery system by the introduction of the National Health Insurance Scheme that was intended to make health care affordable. Many Ghanaian people still prefer to pay for healthcare services. Reasons for this are varied. From observation, it appears that some people hold the view that the national health insurance scheme contributions provide a means for Government to finance political electioneering campaigns. Consequently, individuals may have no interest in Government sponsored health insurance. The national insurance scheme is also perceived as an avenue for embezzlement on the part of its officials. In view of this, many individuals are not interested in subscribing to a national health insurance service perceived as being corrupt. The overall picture is one of poor access and under resourcing of healthcare in Ghana, with people paying for expensive healthcare out of their own pocket. With often unaffordable cost of treatment, traditional medicine remains important in Ghana and many Ghanaians will draw on other traditional forms of healthcare services, for example lay healers, traditional medicine and religious/spiritual healers. However, the result often ends with the maltreatment of patients and abuse of their rights, causing serious health complications to individuals who patronize those services.

1. 15 Religio-Socio-Cultural Identity - `being Ghanaian`

Ghanaian people have a belief in the existence of witchcraft and other supernatural beings including the Supreme Being (Onyinah, 2004; Twumasis, 2005), as well as ancestral worship (Onyinah, 2004). As part of the ancestral worship, Ghanaian people believe that individuals who do things contrary to the social norms or standards are punished by the ancestors (Onyina, 2004). For instance individuals who commit sins in society are punished by the ancestors in different forms. The punishment may be in the form of a curse which can affect

the entire family and the generations to come, such as witchcraft attacks, poverty, road traffic accidents and unexplained diseases and deaths among a lot of catastrophic incidents (Onyina, 2004). The next section summarizes the introductory chapter noting the research focus and the research context.

In this chapter, we have so far introduced the research focus and the research context for the study. Diabetes mellitus was identified as increasing exponentially in Ghana, in urban and rural communities. However, access to health care was described as variable in quality and quantity across geographical areas of Ghana and within diverse ethnic communities, some of whom hold fast to traditional health beliefs, whereas others rely on westernized health services, while others will utilize a 'mixed provision'. Observations from clinical encounters with patients, newly diagnosed with type 2 diabetes, indicate patients' ability to cope and therefore self-manage diabetes as variable. Consequently, any approach to health education has to take account of variability in health beliefs and variability in access to health care services, thereby avoiding a 'one size fits all' approach. Diagnosis of diabetes in Ghana is made and received by patients in a context of poor health services, and lack of available resources for what is perceived to be a long term and challenging condition, with a poor outcome. Many patients will have pre-conceived ideas as to the trajectory and outcome of the disease. In a context where healthcare insurance is perceived as 'not worth investing in', patients tend to rely on traditional remedies, with often less than positive outcomes. A phenomenon identified as 'diabetes-related distress' was noted in newly diagnosed diabetics, whereby a fatalistic attitude prevailed with patients referring to the disease as one brought about by the gods and therefore only curable by the gods. The combination of resource poor, inadequate health services, lay and traditional beliefs about health and illness, and the phenomenon of 'being Ghanaian' require a powerful approach to research in order to understand the patients subjective experience, to gain insight into their motivations and

actions, and to cut through the clutter of taken-for-granted assumptions and conventional wisdom, which does not 'fit' within a Ghanaian context. In order to inform nursing practice, nurse education, and healthcare policy on ways in which newly diagnosed diabetics can be assisted to cope with and subsequently self-manage their diabetes the research aim, and subsequent research questions were then formulated. The next section shows the outline of the current study. The chapter ends with glossary of terms.

1.16 Thesis Outline

These are:

Chapter one has considered the background to the research, cultural health beliefs in Ghana and elsewhere, the researcher's personal motivation for the study, issues of power differentials and how these were addressed and an overview of Ghana and the Ghanaian health care system.

Chapter two critically analyses relevant literature including cultural health beliefs on health seeking, patients reactions to a diagnosis of diabetes, coping strategies used by patients who have diabetes, ending with a presentation of the theoretical framework used to underpin the thesis.

Chapter three presents the methodological framework underpinning the research process including the rationale for choosing to adopt a hermeneutic phenomenological approach to qualitative research. The research processes involved in the study are presented including methods for data collection, and analysis. Ethical considerations pertinent to this study are discussed.

Chapter four presented the findings and subsequent analysis, which is organised within the following main categories:

1. Cultural Illness Beliefs about the causes of diabetes mellitus
2. Social meanings attributed to diabetes
3. Patient's reactions to diagnosis and resolution
4. Health seeking behaviour of patients with type 2 diabetes
5. Patients' concept of seeking cure
6. Living with diabetes mellitus and associated experiences.
7. Coping methods used by the respondents included positive and negative strategies, and alternative strategies

In addition, participants' unspoken words during data collection (what it is to be Ghanaian) was identified.

Chapter five discusses the research findings in relation to the reviewed literature and the theoretical framework identified in chapter two. Based on the findings and subsequent discussion, the implications of the study and priority areas for future research are presented.

Finally, **chapter six** offers conclusions and recommendations for nursing practice, education and policy. Now, the subsequent section considers the glossary.

1.17 Glossary

Bonsam Yare (Demonic/Satanic/Devil's Disease) – The source of the condition is the devil/Satan or demon.

Yare Bone (Bad Disease) – A disease which has destructive abilities causing a lot of complications to the body.

Koankoro Yare (Chronic Disease) – A disease which defies treatment or cure which eventually kills the affected person.

Abusua Yare (Family Disease) – A disease that runs in families (having a genetic component).

Asikyire Yare (Sugary Disease) – The source of the disease is sugar consumption.

Asikafo Yare (Disease of the Wealthy) – A disease which is for the rich people in society as a result of their affluent lifestyle.

Duabo Yare (Cursed Disease) – A disease which is inflicted on someone as a curse.

Nto Yare (Bought Disease) – A disease which is caused through spiritual buying or someone selling the disease to the affected person in a spiritual manner.

Bayie Yare (Witchcraft Disease) – The source of the disease is witchcraft.

Mogyamu mu Yare (Disease in Blood) – A disease which is found in the blood of the affected individual.

Akan Twi – One of the local languages spoken in Ghana especially by the Akan people of Ghana

For the purposes of this study Newly Diagnosed Patients with Type 2 Diabetes are defined as:-

Type 2 diabetic patients, who have been diagnosed within a period of three (3) months prior to participation in the study.

The next section presents chapter 2, the literature review.

Chapter Two

Literature Review

2. Introduction

A literature search is “a systematic and thorough search of all types of published literature in order to identify as many items as possible that are relevant to a particular topic” (Gash, 2000, p. 1). Items can include books, journal articles, reports and papers. Databases such as British Nursing Index (BNI), Cumulative Index to Nursing & Allied Health Literature (CINAHL), Pre Cinahl, Psycinfo, Medline, as well as the “Google Scholar” search engines were utilized. The inclusion criteria for the search was abstracts, articles written in English, latest updates, qualitative research articles, quantitative articles and PDF full text articles. The exclusion criteria included publications not in English. In addition studies not written in English but its abstracts were clearly presented in English language and well understood by the researcher were used, however with extra care and thoughts.

This section focused on the type of databases and search engines employed for the literature search as well as nature of articles considered for this study. The next section specifically looks at the search strategies for literature on diabetes in Ghana and coping strategies as well as models for coping using mesh words.

2.1 Search Methods

The literature search combined several key words such as diabetes, Ghana, diabetes in Ghana, diabetes mellitus and coping strategies, diabetes mellitus type 2 and qualitative research, models for coping strategies, and diabetes type 2, coping and patients. CINAHL, MEDLINE and BNI were used as they are considered the main nursing databases, used by the researcher’s (institutional) library, and hence easily accessible. Google was added to the

search process as most of the journals and non-journal articles or papers on diabetes in Ghana were easily accessible at this site. Google scholar was employed as most of the articles on coping strategies used by diabetic patients and patients in general were available at this site. Difficulty was experienced in finding research studies on coping strategies employed by diabetic patients in Ghana, which infers that there is possibility that little or no research has been done in this area in Ghana. Journal articles were chosen wherever possible, as opposed to books, due to the fact that books take longer period of time to be published and so tend to be not up to date, and because journals more often deal with current issues (Asian Institute of Technology, Language Centre, 2005). It is also pointed out that books are useful for teaching purposes but not for research activities, however they may serve as an initial point out of which we can access other resources for research (Asian Institute of Technology, Language Centre, 2005). In addition, studies cited in some of the articles and used as reference in this literature review, which seemed relevant, pertinent and key to the thesis were accessed for additional sources of information.

In this section, we have looked at the search approaches for literature on diabetes in Ghana, coping strategies as well as models for coping using several interconnected words. However research studies on coping approaches used by diabetic patients in Ghana were not available which seems to suggest that there is paucity of research studies in that area. The following section centres on the organization of the main literature chapter.

2.2 The Literature Review

The literature chapter is organized within the following five themes. The first theme (1) provides a comprehensive review of literature concerned with diabetes mellitus as a disease condition in the particular context of Ghana. This is followed by a second theme (2), which considers reactions to being given a diagnosis of diabetes mellitus. Coping strategies forms

the third (3) theme, specific coping strategies used by patients provides the fourth (4) theme, being organised under the following headings: (a) cognitive coping strategies, (b) emotional coping strategies, (c) seeking social support as a form of coping strategy, (d) religious coping strategy, and (e) coping and psychosocial adaptation to type 2 diabetes mellitus, ending with summary critique of literature on coping methods as theme 5.

The next section of the literature chapter centres on studies associated with cultural health beliefs as well as cultural influences on health seeking behaviour of patients with chronic conditions with examples from China and other parts as theme six (6), whereas theme seven (7) specifically looks at the possibility of integration between biomedicine and traditional medicine.

The chapter ends with theme eight (8) on the search for theoretical framework for this thesis by suggesting a theoretical framework to address the research questions, which reflect the literature, while at the same time conceptualizing the concept of coping. The search for a model considered three (3) conceptual frameworks: (a) Conservation of Resource Theory (COR) for Stress Management, (b) Repression-Sensitization Coping Model and (c) Transactional Model for Stress Management (TMSM). TMSM seems to be appropriate for this current research.

The outline of the literature chapter has been shown in this section. The subsequent section looks at diabetes in Ghana in relation to the picture of the condition at the global level including sub-Saharan Africa.

2.3 Theme (1) - Diabetes in Ghana

The prevalence and incidence of Non Communicable Diseases is on the increase globally and diabetes mellitus is not an exception, which is now considered as the most significant source

of death (International Diabetes Federation, Diabetes Atlas, 2011). In 2001, it was estimated that about 75% of the global population with diabetes would come from the development world including Africa by 2025 (Sobgwi et al., 2001). In sub-Saharan Africa the prevalence rate of diabetes in the rural areas was estimated to be 1% in 2005, while in the urban centres the prevalence rate of diabetes was found to be between 5% and 7% (Kengne, Amoah and Mbanya, 2005). However, in areas such as South Africa, the prevalence rate of diabetes between 8% and 13% was recorded in the same year (Kengne, Amoah and Mbanya, 2005). Gill et al., (2009) and Levitt (2008) pointed out that type 2 diabetes mellitus was the most widespread type of diabetes in the sub-Saharan Africa, making up “90 to 95%” (Tuei, Maiyoh and Ha, 2010) of the total diabetes conditions. Obesity and body overweight, physical inactivity, urbanization, aging, sedentary life and other lifestyle factors were reported to be the main reasons behind the increasing number of type 2 diabetes cases in sub-Saharan Africa (Mogre, Abedandi and Salifu, 2014). Daousi et al., (2006) found that type 2 diabetics usually have higher body weight than people who do not have diabetes, which shows an association between higher body weight or obesity and the formation of type 2 diabetes mellitus. Type 2 diabetes mellitus is said to form about 90% of all diabetes cases in Africa (Hall et al., 2011). This is similar to what Tuei, Maiyoh and Ha (2010) had already reported of the total type 2 diabetes conditions in sub-Saharan Africa ranging between 90 and 95%. The prevalence rate specifically for type 2 diabetes identified and recorded at the same time ranged from 0.6% in the rural areas of Uganda to about 12% in the urban areas of Kenya, and from 0 to 7% in countries like Ghana, Guinea, and Nigeria to mention a few (Hall et al., 2011). In Zimbabwe for instance, the prevalence for type 2 diabetes mellitus was higher than 10% (Hall et al., 2011). One of the factors associated with differences in diabetes prevalence reports in sub-Saharan Africa is related to untrustworthy and insufficient as well as contradictory data given by various researchers (Amoah, 2003b). In addition to the reasons

by Amoah in 2003b, Mbanya and Ramaiya (2006) noted that difficulties associated with accurate prevalence and incidence rate is related to inaccuracies of the population surveyed. This is because in some situations “complete census in Africa are rare and migration in and out of the study area is also common” (Mbanya and Ramaiya, 2006). Further, these differences in the prevalence rates of diabetes may be explained due to “ethnic differences” (Mbanya and Ramaiya, 2006, p. 3) as well as probably associated with design or the approach used for the study (Mbanya and Ramaiya, 2006). In the past, it was thought that the condition was not common in sub-Saharan Africa but now the disease is believed to be increasing in an alarming proportion due to lifestyle changes (Aspray et al., 2000) including inactivity, tobacco smoking and excessive alcohol intake and sedentary life in general (De Graft Aikins, 2005).

In Ghana, previously reported data on diabetes mellitus were unreliable and inadequate as conflicting data were given by various researchers. Varied rates of diabetes prevalence in Ghana have continued to be reported by researchers. For instance, in 2001, the Ministry of Health in Ghana reported that 4% of Ghanaian people in the age bracket of 15 and 70 years have developed diabetes mellitus partially due to poor lifestyle such as inactivity, consumption of fatty foods and binge drinking of alcohol among the youth as well as increasing number of obese and overweight (Ministry of Health, Ghana, 2001). In addition, a community based study in Accra by Amoah, Owusu and Adjei (2002) found diabetes prevalence rate of 6.3% in which type 2 diabetes formed about 90% of all the reported cases.

It was also reported that Ghana was moving at a faster rate towards an eminent and potential epidemic consequences associated with exponential rate of development of chronic diseases such as diabetes with a national prevalence rate which ranged between 0.2 and 0.8% in 1997 to 4% in 2000 (Pan African News Agency Report, August, 2000). Some of the factors

identified as major causes of diabetes in the Pan African News Agency Report (2000) indicated sedentary lifestyle, lack of activities, as well as overweight and obesity among individuals.

Beecham (2007) also observed that, in Ghana, the traditional lifestyle is no more in existence and that individual these days resort to westernized lifestyle, a major cause of chronic diseases such as diabetes mellitus and hypertension (Beecham, 2007). The report showed that Ghana just like any developing country, diabetes was affecting about “50 percent of patients” in Ghana, and that about “2.2 million Ghanaian people already suffered from the condition” (Beecham, 2007). In addition, the diabetes patients association of Ghana pointed out that “one person dies every ten seconds due to diabetes and its related complications including amputation, impotence, stroke, heart attack, and blindness” (Beecham, 2007).

It has also reported that the prevalence rate of overweight and obesity was between “50 and 90%” among patients with type 2 diabetes mellitus in Ghana and Nigeria (Danquah et al., 2012). In their cross sectional study (Danquah et al., 2012) found that type 2 diabetes mellitus affected about 6% of adults whereas 29% of adults were living with hypertension in urban setting of Kumasi in Ghana respectively. Participants in their study were individuals from deprived socio-economic class and “characterized by high proportions of central adiposity, respective family history, hypertension, hyperlipidaemia and albuminuria” (Danquah et al., 2012). Findings show that their lifestyle in general is not different from what happens in other parts of Africa including lifestyle associated with sedentary system, overweight and obesity especially among women, alcohol and tobacco smoking was somehow low, and lack of physical activities accounted for increasing number of people who developed diabetes (Danquah et al., 2012).

The various researches reviewed located similar factors as the major and common causes of type 2 diabetes mellitus. For instance all the studies point to obesity, overweight, inactivity, tobacco smoking, alcohol consumption and sedentary system and other lifestyle factors as major cause of type 2 diabetes. The reason is that chronic obesity is believed to lead to increased insulin resistance in the affected individuals which can extend to type 2 diabetes (Shoelson, Lee and Goldfine, 2006), as insulin receptors may be covered by the excess adipose tissues which may make it difficult for the insulin to be utilized. Too much or excess fat according to Kopelman et al., (2005) leads to about 64% cases of diabetes in men whereas 77% of diabetes in women (Kopelman et al., 2005). Other studies have also pointed out factors such as sugar (Malik et al., 2010) which is believed to cause type 2 diabetes in people because of its toxic effect in almost all the body organs including the pancreas which produces and secretes the insulin (Lustig, Schmidt and Brindis, 2012). As a toxic substance to the pancreas, it causes damage to pancreas and impairs its normal physiological functions, thereby leading to overt diabetes mellitus (Lustig, Schmidt and Brindis, 2012).

Comparatively, the prevalence rate of diabetes mellitus is higher in the South African region, which falls between 8% and 13% as recorded by (Kengne, Amoah, and Mbanya, 2005). However in sub-Saharan Africa the prevalence rate in the rural areas was estimated to be 1% in 2005, while in the urban centres the prevalence rate of diabetes was found to be between 5% and 7% (Kengne, Amoah, and Mbanya, 2005). These differences in the prevalence rates of diabetes in South Africa and sub-Saharan Africa may be explained as due to “ethnic differences” as already pointed out by (Mbanya and Ramaiya, 2006). For instance, it has been noted that, actions and features of type 1 diabetes is different in sub-Saharan Africa as compared to the rest of the world (Mbanya and Ramaiya, 2006). For instance, it has been found that type 1 diabetes in South Africa and Ethiopia is identified in people later in life as

compared to other places. It has also been noted that diabetes type 1 for instance affects women more than men (Mbanya and Ramaiya, 2006). Further, for type 1 diabetes, it has been identified that, the highest age of inception is about 13 years in the white South Africans, which is similar to that of Europeans. However in the Black Africans, the highest age at which one gets the condition is around 23 years (Mbanya and Ramaiya, 2006). However, not in the same year, the prevalence rate as recorded by Hall et al, in 2011 for Ghana falls from 0 to 7%.

Additionally, in the researcher's experience as a nurse in Ghana has observed that women in particular perceive that body weight is a reflection of how well one is fed and of one's wealth. The researcher has encountered with patients under his care who were placed on fat reducing drugs by their physicians but refused to take such drugs with the fear that they would reduce in weight, in which case they would be stigmatized as having HIV/AIDS. Culturally, the obese in Ghana are considered to be the wealthy in society, who are able to sufficiently feed themselves to live comfortably well, and live a pleasurable life as compared to others who are slim in size (Kubuga et al., 2013). Therefore, being obese is a status symbol and valued body structure in Ghanaian sense but a risk factor for the development of non-communicable diseases such as diabetes and hypertension.

In light of this initial disclosure, it seems clear that diabetes is not rare in Ghana and that it is important to explore the coping strategies of these patients, especially type 2 which affects the majority (90%) of Ghanaian people who have diabetes (Amoah, Owusu and Adjei, 2002).

In summary, the studies reviewed in this section have clearly informed us about the possible risk factors for the development of type 2 diabetes mellitus, which centred on obesity and body overweight, physical inactivity, urbanization, aging, tobacco smoking, alcohol

consumption, sedentary life and other lifestyle factors. In addition, we have identified the prevalence rates of diabetes in sub-Saharan Africa and Ghana in particular. These have revealed the extent to which diabetes is seen as an alarming condition; however people's attitude towards prevention and management of the condition has not been studied. In addition, the condition poses a serious burden on the affected individuals. Therefore, there is the need to find out how individuals newly diagnosed with type 2 diabetes cope with the condition in order to self-manage.

The next section focuses on the over-all processes and stages involved in reactions to chronic illnesses by individuals whereas the successive section looks at the various research investigations which have been conducted on reactions to chronic conditions including diabetes.

2.4 Theme (2) - Reaction to Diagnosis of Diabetes Mellitus

The diagnosis of a chronic disease such as diabetes requires the affected person to make life long adjustments in order to live successfully with the condition. The type of reactions which people have may be as a result of how the condition is explained to them or based on the experiences living with the condition. It is important to note that the type of reaction that individuals show during diagnosis may also determine how the affected person will carry on with the condition.

The general processes as well as stages associated with individuals' reactions to chronic illnesses have been studied by researchers. One of such studies on processes of reaction to diagnosis was carried out by Kubler-Ross and Kessler in 2005. Their study indicates that a patient diagnosed as having a chronic condition goes through certain processes before the disease condition is finally accepted. These stages are "denial, rage or anger, bargaining, depression and acceptance" (Kubler-Ross and Kessler, 2005). The stage of "denial" is a point

where the patient expresses shock about diagnosis and has difficulties in facing the realities of the situation being confronted with (Kubler-Ross and Kessler, 2005). In such a situation the patient may deny the disease as a reality or may decide to reject part or the entire treatment for the condition (Peres et al., 2008). Among the reasons, some patients contend why the condition is at this time and not in the future, and why me, and not that person. At a point in time following diagnosis, the patient may no longer use denial as a coping method; rather resort to “rage or anger”, in which case the anger may be directed to the family members as well as friends and the healthcare professionals in general probably due to many restrictions associated with the condition (Peres et al., 2008). The stage of anger is followed by “bargaining” through which the patient negotiates with individuals such as friends, family members and healthcare providers in order to get some gains over the condition, which may be seen as an antidote or answer for the distress the disease condition has brought about (Peres et al., 2008). The fourth stage according to Kubler-Ross and Kessler (2005) “depression” which is characterised by “feeling of loss” and “intense sadness”. However, patients begin to show that despite the fatalities and losses, they have also experienced some advantages and this factor moves the patient to the “stage of acceptance” (Kubler-Ross and Kessler, 2005). The “acceptance stage” is the point where adaptation by the patient has occurred through a steady modification in actions and behaviour (Kubler-Ross and Kessler, 2005). The patient then “becomes conscious of self” and becomes accountable for his overall health. The patient at this stage has “inner peace which favours acceptance and adaptation to the condition” (Kubler-Ross and Kessler, 2005). This study by Kubler-Ross and Kessler in 2005 is important as it illuminates the processes involved in reaction to diagnosis of a chronic condition. This may give a better understanding to caregivers of all categories of how to care for people living with chronic conditions regarding the type of reactions they show. As much as the findings of their study are imperative, it did not consider individual differences such as

children and adults, as well as sex and culture and other factors on how they influence the way people react to situations. For instance, in the view of the researcher and in the researcher's experience as a nurse in Ghana, has observed that ethnicity and cultural background influence persons' reaction to situations. For instance some patients may weep for one or two reasons but others may not weep and are able to endure pains, due to cultural or ethnic differences. In Ghana, for instance, men are not supposed to weep even if there are pains associated with a condition or a situation. That shows a level of masculinity of the man in question, in a popular saying that "obarima nsu" which literally means "man should not cry". In this case if the man is to cry as a reaction to pain or something else, the true picture of the reaction may not be identified because culturally this man is not likely to cry. Several of similar instances may be cited in the Ghanaian society, which may define the type of reactions that individuals are likely to show in disease situations and other circumstances.

The preceding section centred on the general processes and stages involved in reactions to chronic illnesses by individuals. The subsequent section looks at specific research investigations which have been conducted on reaction to diagnosis.

A qualitative study by Ijaz and Ajmal (2011) recruited type 2 diabetics and their caregivers in Pakistan, and explored their experiences. Their experiences were obtained through semi-structured interview guide. The diabetics were within the age range of 40 and 70 years old, while their caregivers were in the range of 17 to 50 years. Data from the study was analysed using interpretive phenomenological approach to qualitative research. Among the themes which emerged included "diabetes related distress, perceived severity of the condition, and positive emotional reaction, friends and relatives reactions" (Ijaz and Ajmal, 2011, p. 50).

The participants' perceived diabetes to be a very bad condition due to the fact that, it was believed to be the source of all conditions. In addition, the participants perceived diabetes to be a serious condition because it can cause lot of complications to the affected person (Ijaz and Ajmal, 2011). On "diabetes related distress", the participants experienced negative emotional reactions which centred on "irritability, fear, depression, anger, weeping, tension, sadness, irritability, shock, regrets, hopelessness and denial". Equally, caregivers also experienced negative emotional reactions such as "sadness, tension, anger, disappointment, fatigue, pains and mental exhaustion" to (Ijaz and Ajmal, 2011, p. 51). According to (Ijaz and Ajmal, 2011), participants became angry and irritable because they were asked not to eat certain foods. For instance when other people were allowed to eat all kinds of foods at weddings, diabetics were advised to be selective on food. In addition the patients experienced high levels of blood sugar and that made them angry and irritable, perceiving what might have happened to their condition (Ijaz and Ajmal, 2011).

The participants reported "hopelessness and disappointments" in dealing with their diabetes. This is because, despite the regular administration of insulin in the morning, afternoon and evening, their blood glucose level remained raised, and so they despaired and became depressed as well (Ijaz and Ajmal, 2011). Some also became depressed following eye complications associated with the condition. Further, they mentioned "fear of becoming ill, fear of eating as they perceived their glucose levels would shoot up as well as fear of other diseases and fear of insulin injections and the ultimate death" (Ijaz and Ajmal, 2011, p. 51). However, some participants reported being afraid, because with diabetes one lives for only a short period of time and passes on.

The other side of patients experiences centred on "positive emotional reactions". According to (Ijaz and Ajmal, 2011), the patients were happy, when it was identified that their blood

glucose levels were within the normal range, and perceived that in the subsequent days it would continue to be low.

The study also reported reactions from family as well as friends and relatives. Participants mentioned that they received support from family members such as cooking for them, taking them to the doctor for reviews and buying medicines for them. However, as much as they received these kinds of support from family, some of their friends as well as relatives discouraged and avoided them because they had diabetes, a very bad disease.

When considering positive emotional reactions, caregivers expressed happiness for caring for their relatives because they knew their rewards are in heaven or in this world. Other patients' relatives' reactions were also based on the disturbances regarding financial constraints in terms of care of the diabetics. The relatives also complained that their patients were "rude" on them following diagnosis. The rude behaviour may be equated with "rage or anger" which Kubler-Ross and Kessler (2005) have labelled as stage one of their reaction process among individuals living with chronic conditions such as diabetes mellitus. Caregiver also noted that "non caregivers are living a fearless, easy and tension free life". This is because; the non caregivers have no care responsibilities that place stress or nervousness on them.

In summary the findings from Ijaz and Ajmal (2011) show that diabetes does not affect only the patient, but the entire family members of the patient as well as friends. The condition is associated with lot of restrictions which makes the patient feels being deprived of normal life. Similarly, the caregiver's life is altered at all levels including social, spiritual, as well as religious and economic because of care giving obligations (Ijaz and Ajma, 2011).

Though the two studies Kubler-Ross and Kessler (2005) Ijaz and Ajmal (2011) set off to look at how patients react to diagnosis of a chronic condition, such as diabetes mellitus, findings are different. Whereas, Kubler-Ross and Kessler in 2005 identified the stages of reaction to a chronic condition including "denial, rage or anger, bargaining, depression and acceptance",

Ijaz and Ajmal (2011) findings focused on diabetic patients' experiences and reactions to the diagnosis of type 2 diabetes. It is important to note that in Kubler-Ross and Kessler's work in 2005, they identified general and standard reaction processes when individuals are diagnosed of having any chronic condition. Their 5 stages of reaction seem to suggest a framework which individuals who are battling with chronic conditions may go through. However in Ijaz and Ajmal (2011), different reactions shown in their study in Pakistani type 2 diabetics were based on patients' experiences. For instance, patients in Ijaz and Ajmal (2011) did not go through standardized stages as proposed by Kubler-Ross and Kessler in 2005, but in a straight forward manner, their patients were either frustrated or shocked, fear, depressed or experienced hopelessness or disappointment. One may wonder if these patients went through all the 5 stages as proposed by Kubler-Ross and Kessler in 2005. Similarly, reactions of relatives and caregivers were based on their experiences and perceptions, caring for the diabetics. Among the two studies, it is only Ijaz and Ajmal (2011) who mentioned positive emotional reaction such as happiness experienced by diabetics when they observed that their blood sugar level had gone down and even expected it to go down more. Positive emotional reactions such as happiness (Ijaz and Ajmal, 2011) seem not to equate any of the 5 stages by Kubler-Ross and Kessler (2005) namely, "denial, rage or anger, bargaining, depression and acceptance", but somehow closer to "acceptance" where the patient is said to have come to terms with the diagnosis, where some level of happiness may be observed in the patient. The negative emotional reactions as experienced by diabetics and their caregivers in the work of (Ijaz and Ajmal, 2011) seem to suggest the same pathway for standardized processes or stages of reaction as shown by Kubler-Ross and Kessler. In Ijaz and Ajmal (2011), the negative emotional reactions by both diabetics and their caregivers such as sadness, tension, disappointment, shock and the rest did not occur sequentially like the processes we have in (Kubler-Ross and Kessler, 2005). In Ijaz and Ajmal (2011), friends' reaction towards

diabetics took a different form, such as “avoidance of patients”, and “discouraging the patients that diabetes is a bad disease” (Ijaz and Ajmal, 2011, p. 52) which has serious complications and can kill easily, however few other friends encouraged the diabetics to engage in better self-care practices for good health (Ijaz and Ajmal, 2011). “Avoidance of patient” and “discouraging the patient” as a type of reaction from friends of type 2 diabetics (Ijaz and Ajmal, 2011) seem not to fit in any of the 5 stages of reaction by individuals as proposed by Kubler-Ross and Kessler (2005), namely “denial, rage or anger, bargaining, depression and acceptance”. This appears to support the researcher’s initial assertion that reaction to a situation or a disease condition may not necessary mean that Kubler-Ross and Kessler’s processes of reaction as proposed in 2005 should be followed but due to individual differences and circumstances in which they find themselves may lead to different reactions all together.

With these differences in reactions by individuals, it may be important to examine specific reactions exhibited by individuals who live with chronic conditions. For instance reactions such as, being frustrated, depressed, exhibiting hopelessness or disappointment, tension, shock and happiness. These are some of the gaps which need to be investigated.

In a similar qualitative study on patients’ reactions, Peres et al., (2008) examined feelings of women following diagnosis of type 2 diabetes in Brazil. The women who qualified for the study were recruited into the study through their health files at the “Oswaldo Cruz Basic Health Unit”. Inclusion criteria included being diagnosed as type 2 diabetic, for a period of at least one year, women who visit Oswaldo Cruz Basic Health Unit, women with sound mind which would not disrupt their communication and able to communicate effectively, and who were ready to give a written consent, and falls between ages 49 and 76 years old. Interviews were conducted using semi-structured interview guide for data collection. This method of

data collection helped to allow the participant to speak freely about the experiences and feelings following diabetes diagnosis. Data was analysed using thematic content analysis after data was fully transcribed.

Findings centred on several feelings and emotional reactions following diagnosis of type 2 diabetes mellitus. These reactions focused specifically on rage, anger, sadness, fear, shock and fright. However, the patients became used to the experiences living with the condition later in life (Peres et al., 2008). Some of the reasons given for being angry by the participants were around issues such as restrictions associated with diet, like they were asked not to eat sweets which were favourites for some participants. Others were also with the view that their conditions would be cured. On sadness and shock some felt that they had seen some diabetics with complications, so they felt that it may be possible for them to get complications in future. In this regard they were frightened following diagnosis (Peres et al., 2008). One of the participants said that her father-in-law recently died from diabetes, so he became sad, shocked and frightened following her diagnosis of her diabetes. Others expressed sentiments of nervousness because of fear of complications that are associated with the condition, and felt that they can fall into coma stage at any time (Peres et al., 2008). Peres et al., (2008) explain that negative feelings and reactions associated with diabetes may be due to over emphasis on prohibitions regarding diabetics care by the healthcare providers during their health education upon diagnosis.

However, with time the patients learnt to be in level terms with diabetes. This was the time when the women began to accept the condition and to live with it, the point of resolution as already proposed by Kubler-Ross and Kessler (2005), the stage they called “acceptance stage” of a classic reaction process. One of their participants remarked: *“Nowadays, I do not care anymore, it has been 16 years, and I have not died yet. If I last another 16 years, it is*

good enough". Another said: *"Yeah, I don't worry about diabetes,..... I don't worry about diabetes, because if I worry too much, then it gets worse"* (Peres et al., 2008, p. 104).

As part of the women's experiences living with the condition, some of them however showed positive reactions to diagnosis. Some of them indicated that diabetes should not cause nervousness among sufferers provided the patient is able to control the condition by adhering to its treatment and other self-care regimen. They felt that as far as the glucose level is controlled there may not be any problems associated with the condition.

Their findings are important, since healthcare providers need to know and understand these reactions in order to give them the needed support and care such as counselling following diagnosis of a chronic condition such as diabetes mellitus. The lessons that can be learnt from their emotional reactions are that, such feelings may affect treatment conformity and compliance as well diabetes self-control, as individuals with diabetes do make their own choices about treatment based on their own "values, feelings, thoughts and other psychosocial aspects that predispose to actions" (Peres et al., 2008).

The reactions demonstrated by the women with type 2 diabetes in Peres and colleagues' study in 2008 are reflected in Kubler-Ross and Kessler's (2005) stages of emotional reaction to diagnosis of a chronic disease. Though in Kubler-Ross and Kessler's work in 2005, such stages were systematic and orderly presented, first followed by second in that order to the 5th stage, but in Peres and colleagues' study in 2008, the stages identified did not follow Kubler-Ross and Kessler's framework. However, the interpretations of same concepts in both studies are the same. For instance studies by Kubler-Ross and Kessler (2005) and Peres et al., (2008) mentioned anger and rage as part of the reaction. Kubler-Ross and Kessler (2005) saw rage and anger as a stage in the reaction process but Peres et al., (2008) did not categorized rage and anger as a stage in the reaction process but a type of reaction exhibited by diabetics. Both studies also agree on the acceptance stage of patients' reaction to diagnosis. Though Peres et

al., (2008) did not specifically listed acceptance as a resolution to reactions, but explained it as some of the participants in their study demonstrated the process of resolution when they came to terms with diabetes diagnosis.

With regards to diabetics' reaction to diagnosis, findings in Peres et al., (2008) and Ijaz and Ajmal are similar. Ijaz and Ajmal (2011) identified negative emotional reactions which centred on "irritability, fear, depression, anger, weeping, tension, sadness, irritability, shock, regrets, hopelessness and denial", however Peres et al., (2008) found "rage and anger, sadness, fear, shock and fright". All of them seem to move around the same negative feelings associated with diabetes diagnosis. These specific reactions were based on individual experiences, which suggest that reaction to diagnosis may be determined by individuality, which is also dependent on other factors such as culture. The other similarities in the two studies are that each of them found positive emotional reaction among the diabetics. For instance Peres et al., (2008) reported that some of the participants said that diabetics should not experience nervousness as long as they are able to control their sugar level. In Ijaz and Ajmal (2011), positive emotional reaction focused on happiness when the participants observed that their sugar levels had gone down. The two findings are similar but dependent on patients' respective experiences as already mentioned.

In summary, the three studies have identified different reactions exhibited by diabetics following diagnosis. Kubler-Ross and Kessler (2005) specifically focused on a reaction model, namely "denial, rage or anger, bargaining, depression and acceptance", but Ijaz and Ajmal (2011) and Peres et al., (2008) presented individualistic emotional reactions based on their experiences living with diabetes mellitus. Being exploratory descriptive studies, both Ijaz and Ajmal (2011) and Peres et al., (2008) have provided in-depth experiences of people living with diabetes and their reactions to diagnosis. Such findings are important for

healthcare providers as the findings will inform them the type of care they are supposed to give to these patients. Kubler-Ross and Kessler's (2005) model may serve as a framework which researchers could use in studies associated with general reactions regarding chronic diseases. However it may be important to consider the effect of individuality on the stages identified in the reaction processes. It may also be important to explore the specific reactions experienced by patients in Kubler-Ross and Kessler (2005) and Ijaz and Ajmal (2011) studies to identify the processes involved in the patient's reaction.

In a similar qualitative research using semi-structured interview guide, Khan et al., (2013) also examined experiences, perceptions, attitude and beliefs of individuals living with diabetes in Buffalo, a culturally diverse community. In all 34 participants who were diagnosed for a period not less than 1 year after diagnosis were eligible for inclusion. The 34 participants were composed of 14 individuals with refugee status from Somalia, Sudan, Burma or Cuba, 8 Puerto Ricans, six were non-Hispanics Caucasians, six African Americans and Native Americans were 2. Their findings showed that, emotional reactions to diabetes were similar to Kluber-Ross and Kessler's stages of grief processes; however an aspect of fear was added to denial by Khan et al., (2013) as their first stage of the grief process. The explanation of fear was linked to possibilities such as development of complications and disfigurements like amputation, blindness, kidney problems and cardio-vascular diseases among many others. The aspect of fear as expressed by the participants in Khan et al., (2013) study were also identified by Peres et al., (2008) and Ijaz and Ajmal (2011). In all the two studies, Khan et al., (2013) and Peres et al., (2008), fear as a reaction to diagnosis was linked to complications development. However in Ijaz and Ajmal (2011), fear was associated with eating and getting high sugar level, insulin injection, recurrent diseases, and fear of death as the ultimate. In Khan et al., (2013) study patients were always astonished by the diagnosis of

diabetes, and indicated emotions related to the stages of grief including “denial, anger, bargaining, depression and acceptance” (Kubler-Ross and Kessler, 2005).

These review studies, Peres et al., (2008), Ijaz and Ajmal (2011) and Khan et al., (2013) have shown different emotional responses which individuals experience living with chronic conditions. Knowledge of healthcare workers on feelings and reactions of patients following diagnosis of chronic diseases is imperative in order to offer them the needed support and care. In addition, emotional reaction processes as proposed by Kubler-Ross and Kessler (2005) has several advantages for the patient because at the end of the stages, a point of resolution is achieved by the patient, when he comes into terms with the disease condition, an acceptance stage. At that stage, the patient seems ready to adhere and comply with the needed treatment protocols. As much as the above reviewed studies have given much insight into how patients with chronic diseases react to diagnosis, they have not been able to identify the actual processes which occur in the specific reactions such frustration, disappointment, tension, fear, happiness and other similar ones. Again, in the review of the available literature it seems that no study in Ghana has been done on how people react to diagnosis of chronic diseases such as diabetes mellitus. One of the researcher’s research questions in the present study is on how patients newly diagnosed with type 2 react to their diagnosis.

In this section, we have so far looked at the importance of reaction to diagnosis of a chronic condition such as diabetes mellitus noting specific and general stages of grief including “denial, anger, bargaining, depression and acceptance” (Kubler-Ross and Kessler, 2005), however Kahn et al., (2013), Ijaz and Ajmal (2011) and Peres et al., (2008) offered personal emotional responses based on unique individualistic experiences living with diabetes mellitus. The section which follows offers brief overview of coping strategies, bringing to light definition of coping strategy and examining classifications of coping approaches or strategies as proposed by various researchers.

2.5 Theme (3) - Overview of Coping Strategies

A coping strategy is defined as “the constantly changing cognitive and behavioural efforts to manage the specific external or internal demands that are appraised as taxing or exceeding the resources of the person” (Lazarus and Folkman, 1984, p. 141).

Generally, the literature mentions two main categories of coping strategies as proposed by Lazarus and Folkman in 1984. These are problem-focused coping methods and emotion-focused coping methods (Folkman and Moskowitz, 2000). Emotion-focused coping methods are essentially significant in reducing the effects of stress on individuals rather than finding solution to the problem causing the stress (Folkman and Moskowitz, 2000). Conversely, problem-focused coping strategies are employed when the situation that causes stressful events is perceived to be amendable (Folkman and Moskowitz, 2004).

Other researchers have also categorized coping strategies as active and passive/avoidant coping strategies (Carrico et al., 2005; Gerin, 2011), similar to what Lazarus and Folkman (1984) identified. Similar to problem-oriented coping mechanism, active coping techniques are used to deal with challenges which individuals face by identifying possible antidotes or interventions to limit the effects of stressful events or situations, whereas passive coping strategies are aimed at running away from the stress without facing it (Lazarus and Folkman, 1984). The common element about these concepts are that both problem centred coping and the use of active coping methods are the same and appear to produce positive results as compared to passive coping styles. For instance, Holmes and Stevenson (1990) pointed out that the use of active coping has tendency to produce a reduced level of pain as well as dejection or depression and improved quality of life. The difference is that, the use of passive/avoidant coping style may be linked with high level of despair and anxiety.

In the area of research associated with stress and coping techniques, different terms have been identified by researchers to define and describe diverse coping strategies employed by

individuals (Chylova and Natovova, 2012). In line with this, additional classifications of coping strategies researchers have identified are positive and negative coping methods (Chylova and Natovova, 2012). Positive coping strategies, just like the active coping methods help people to adjust well to stressful situation in order to re-establish emotional equilibrium. Negative coping methods on the other hand are used by individuals to deal with stressful situations on temporal basis or which provide period of short time support or assistance or relief to people in need but eventually can lead to other problems for the person (Weyers, Ising and Janke, 2005; Chylova and Natovova, 2012). The similarities are that problem centred coping, active coping and positive coping methods are the same in the sense that the three are aimed at helping patients to adjust well to the environmental stressors. On the other hand, emotional coping methods, as well passive coping and negative coping styles are the same as they do not solve patients' problems permanently but provide relief to patients on temporal basis. The use of alcohol to deal with a stressful event is a classic example of negative coping strategy which in the long run may pose additional problems for the individual.

Chylova and Natovova (2012) noted that identifiable factors such as socio-demographic features like gender, age and the level of education among others may influence coping styles that are used by people. In addition the characteristics of a person may also influence the choice of a particular coping strategy.

A critical look at the definitions and descriptions of coping categories identified by the various researchers seem to linger around problem-focused and emotion-focused coping strategies developed by Lazarus and Folkman (1984), which seem to represent positive and negative coping mechanisms respectively as used by other researchers such as (Chylova and Natovova, 2012).

However, there are other coping strategies which have been identified which may neither be useful in instances where problem-oriented nor emotion-oriented coping strategies may be applicable. These coping styles may be specific in situations and individually defined to suit personal circumstances, situations and events (Insing, 2006). It may also be possible for an individual to use the same or similar coping methods during diverse or dissimilar challenges and events in one's lifetime (Aldwin and Yancura, 2011). It may also be possible for individuals as well as patients to employ neutral coping strategies such as ignoring the stressor and behavioural distraction which may be useful neither in place of positive coping nor negative coping (Yanos, West, and Smith, 2010). It has been noted that such coping methods may be problematic when it is used too much or excessively (Yanos, West and Smith, 2010).

The literature in this section identified two major categories of coping strategies but these have been presented from different angles by the various researchers. These are problem focused verses emotional-oriented coping methods (Lazarus and Folkman, 1984), active and passive/avoidant coping strategies (Gerin, 2011) and positive verses negative coping styles by (Chylova and Natovova, 2012). However, there are other coping styles which do not belong to any of the two categories mentioned above but are useful for individuals in specific situations as defined by them (Insing, 2006), as well as neutral coping methods, for instance ignoring a stressor (Yanos, West and Smith, 2010).

The next section looks at some specific research studies in which subtypes of coping strategies were used by patients including diabetics. These research studies centred on cognitive coping strategies, emotional coping strategies, seeking social support and use of spirituality in coping, ending with coping and psychosocial adaptation to type 2 diabetes.

2.6 Theme (4) - Coping Strategies Used by Patients

2.6i. Cognitive Coping Strategies (a)

The aim for using cognitive coping strategies by individuals is to deal with emotional imbalances such as anxiety, depression, sadness and anger that are associated with stressful events and situations as well as similar challenges. The use of information by diabetics and their caregivers is one of the cognitive ways in dealing with diabetes mellitus, which may lead to positive patient outcomes. Now, let us look at some research studies.

In a focus group discussion, involving 30 couples with type 2 diabetes, aged 50 years or more, by Beverly, Wray and Miller (2008), it was identified that the use of information and the need to educate diabetics on new modalities of diet, medication, as well as exercise is paramount in diabetes care. It was also found that information about diabetes is paramount to prevent complications, to plan their care in relation to lifestyle activities and behavioural modifications and the need for information to deal with diabetes as a lifelong condition (Beverly, Wray and Miller, 2008). Their study is very important as it provides insights into the need to provide information to diabetics to deal and cope with diabetes. More importantly is the need for these findings to prompt doctors and nurses to provide current and appropriate information for diabetics to manage the condition in its course. The limitation of their study is about the small number of couples involved in the study which may make the findings difficult to generalize.

In a systematic review study to identify the needs as well as concerns of relatives caring for individuals living with type 2 diabetes mellitus, it was identified that, family members caring for American Indians with type 2 diabetes expressed need and concerns for information as well as resources for the management of the condition (Scarton et al., 2014). The information they requested centred on the type of diet, which is good for their diabetics, and type of

exercise the diabetics are supposed to perform as well as information on how to prevent complications. Specific questions which needed to be addressed focused on where to locate resources to augment the management of the condition (Scarton et al., 2014). Other concerns which were mentioned by the respondents were centred on managing emotions of diabetics, meeting the physical needs of diabetics as well as managing the personal needs of care giving. In their study, a search for published data spanned from 1990 to 2013. In addition references used in the retrieved articles were also searched to get additional information from studies on needs and concerns of family caregivers of type 2 diabetics. From their studies, it was identified that caregivers needed information on type 2 diabetes in general sense, such as the clinical manifestations of complications like hypoglycaemia and hyperglycaemia and how to prevent similar complications. Other studies which were reviewed also centred on dietary management and restrictions. The review also showed that caregivers lamented on the lack of information on the category of foods they should limit and should be encouraged. In their report, it was also noted that Latinos were finding it difficult to cope with American diets as recommended by the American Diabetes Association (Scarton et al., 2014). Care givers also wanted to find out the outcomes of diabetes and how to cope and manage their family members with type 2 diabetes. The family care givers in their study expressed worry about lack of appropriate information needed to take care of their patients, how to note poor progression and also how to manage future or unanticipated problems of the condition (Scarton et al., 2014). As compared to Beverly, Wray and Miller (2008), Scarton and colleagues' study in 2014 had wider range of information from many studies to cover many aspects of care givers and patients' concerns and needs. For instance, care givers in the studies mentioned that they had not been trained on how to care for the patients, such as how to prepare their foods as well as how to check their blood glucose and to identify low and high figures of blood glucose check (Scarton et al., 2014). Other concerns centred on cost of

medical care, transportation, financial cost of feeding on healthy foods in relation to care of diabetics, loss of work as a result of taking offs to care for their diabetics, neglect of personal care as a result of caring for their love ones, they did not get enough time for themselves.

Though the two studies (Scarton et al., (2014) and (Beverly, Wray and Miller, 2008), looked at different entities in terms of diabetes care using different approaches, the two studies have some common findings. The two studies mention the need to make appropriate information available to patients as well as their care givers in order to make type 2 diabetics cope with the disease, so that complications may be avoided. The two studies agree on information related to diet type, medication, as well as exercises as needs of type 2 diabetics. However, the different findings by (Scarton et al., 2014) which Beverly, Wray and Miller (2008) did not find are the concerns raised by the care givers such as cost of medical care, transportation, financial cost of feeding on healthy foods in relation to diabetes care, loss of work as a result of taking offs to care for their diabetics, neglect of personal care as a result of caring for their love ones, they did not get enough time for themselves. These finding were based on the unique characteristics of the participants and the reasons for the research in each case.

Hattori-Hara and Gonzalez Celis (2013) through a cross sectional approach interviewed older Mexican type 2 diabetics to identify coping strategies and self efficacy in managing the condition. The study identified 126 older patients over 54 years old and diagnosed with type 2 diabetes over the past one year or more. Participants were identified by the help of hospital receptionist during OPD visits by these patients. Those who accepted to take part in the research upon explanation by the researchers were later presented the consent form to sign at the hospital and later interviewed. SPSS version 19 was employed by the researchers to analyse the data which were collected. Some of the questions posed to the participants centred on why they need information in diabetes care, what they use for “self recreation” and what they do in terms of “religious coping” as well as what happens in “depressive

coping”. Findings of their study indicated that participants employed active coping strategy to search for information regarding the treatment of type 2 diabetes as well as the need to adhere to the doctors’ education and instructions, and make their feelings known. It was also found that the diabetics set goals for themselves and identified approaches to achieve their goals and aims. Self-recreation centred on the need to ensure success in their management of the condition by encouraging themselves to adhere to treatment. It was also found that the older patients used religion in cognitive coping but this will be covered under spiritual coping. In terms of information seeking, Hattori-Hara and Gonzalez Celis, (2013) is similar to what the two studies reviewed above have considered with regards to the treatment of diabetes mellitus. Hattori-Hara and Gonzalez Celis, (2013) rather mentioned the need to understand, the doctors’ instructions as well the need to use distraction to occupy themselves in terms of self-recreation, which Scarton et al., (2014) and Beverly, Wray and Miller, (2008) did not found in their studies. Hattori-Hara and Gonzalez Celis,(2013) mentioned the need for information on the treatment but failed to mention information needs of type 2 diabetics with regards to diet and exercise.

In summary, from the three studies reviewed above, it is important to recognize that irrespective of the participants’ age and other socio-demographic characteristics, information was identified as paramount in the care of diabetics either by themselves or their caregivers, which centred on dietary needs, medication, exercise and management of the condition in general. However, the three studies have not mentioned specific information needs that go into diet preparation, type of exercises they need to embark on as well as specific information on medication management.

The next section considers emotional coping strategies, drawing on their overall effect on the quality of life of the affected person. The section concludes with researcher’s reflections on the nature of emotional support patients and people under stress receive in Ghanaian context.

2.6ii. Emotional Coping Strategies (b)

Some studies have been conducted to investigate the emotional approach to coping on diabetes outcomes in individuals affected with the condition. One such studies was undertaken by Smalls et al., (2012) to investigate the association between emotional coping strategies and diabetes knowledge, adherence to medication and self-care behaviours in adults living with type 2 diabetes mellitus. Research data was collected from 378 participants with type 2 diabetes from 2 health centres in the South-Eastern United States. The participants were identified by the help of research assistants through the use of electronic clinic attendance schedules to find participants who qualified for the study. Inclusion criteria were clinic attendants with 18 years and above who had been diagnosed and confirmed as type 2 diabetic. Excluded from the study were type 2 diabetics who could not speak English, those who were seriously ill and those who were not mentally sound to be enrolled. In their study coping was assessed by the use of an “emotional approach coping scale” which centred on “Emotional Processing” (EP) and “Emotional Expression” (EE). The EP questions focused on efforts by the diabetic to recognize, discover or explore and to know a persons’ stressor associated feelings. The EE questions on the other hand centred on oral and/or non oral attempts to exchange a few words or signify arousing or emotional experiences of the participants.

Assessment of participant’s knowledge on diabetes centred on questions around the causes and types of diabetes, participants’ own management skills for dealing with diabetes as well as complications associated with diabetes mellitus. Questions on medication adherence required the participants to say “yes or no” to a collection of 4 issues. Whenever a participant answered positively to any question that showed or represented adherence problem with medication. In addition, higher value of responses also indicated poor adherence to medication. Self-care behaviour related to diabetes was assessed based on whether the

participant used healthy diet, ate fruits or low fat diet, did foot care and blood monitoring test for glucose, as well as involved in exercises and indulged in smoking.

Findings of the study showed a significant and considerable relationship between emotional approaches to coping, and adherence to medication, knowledge associated with diabetes as well as, self-care behaviour in adult patients with type 2 diabetes mellitus. The extent to which one is able to recognize, discover or explore and come to an agreement or understanding of stressors was related to medication adherence, knowledge on diabetes and behaviours associated with self-care (Smalls et al., 2012). In addition, it was noted that individuals actively speaking their emotional experiences was also positively related to behaviours of self-care (Smalls et al., 2012). Most of the participants in this study were African Americans who are more spiritually inclined, which may explain the reasons for the findings of this study as a result of their “emotionally charged faith-based beliefs” (Polzer and Miles, 2007 ; Smalls et al., 2012).

This study is important as it advocates and suggests that, programmes or health interventions which promote emotional coping strategies are likely to result in positive health outcomes in the affected individuals, through blood glucose checks, appropriate diet as well as regular exercises in adults with type 2 diabetes. The findings show that emotional coping strategies may be valuable in helping patients diagnosed with type 2 diabetes in order to adapt well to live with a chronic illness. As much as we consider the advantages of the study, it is also important to look at the weaknesses. The study sample was small to ensure generalization of the study findings to other patients with type 2 diabetes mellitus. As we have already mentioned, most of the research participants were African Americans, and so it would be important to employ participants from different and diverse ethnic backgrounds to be enrolled

in a similar study. Findings of such study is likely to offer better suggestions of whether emotional coping strategies are useful for patients diagnosed with type 2 diabetes.

This study has been able to find an association between emotional coping methods, adherence to medication, self-care behaviours and knowledge related to diabetes.

In conclusion, this study identified that emotional coping has important relationship with diabetes self-care and knowledge related to diabetes. The study suggests that health programmes as well as interventions which promote emotional coping approaches may serve as a foundation for improved self-care behaviours in people with type 2 diabetes.

What it failed to address are specific resources needed to affect self-care behaviours in diabetics which are important for patients living with chronic conditions (Polzer and Miles, 2007). In addition, it failed to address relationship between coping approach and reaction to diagnosis of type 2 diabetes. Further, relationship between coping and experiences of living with type 2 diabetes were not addressed.

In a similar investigation, Samuel-Hodge et al., (2008) studied relationship between coping styles, well being and self-care behaviours among African Americans diagnosed with type 2 diabetes mellitus. The main purpose of the study was to identify how coping styles associated with diabetes appraisal, behaviours associated with self-care and health quality of life or the well being of the affected persons with type 2 diabetes. The study identified 185 participants with type 2 diabetes from 24 churches in a community. The inclusion criteria for participants were 20 years of age old or more, with type 2 as a definitive diagnosis, with no history of complications of diabetes and able to speak English language. Exclusion criteria ensured that participants had no other condition apart from diabetes, pregnant or a lactating mother. Ethical approval for the study was received from the Institutional Review Board of the

University of North Carolina at Church Hill, and each of the participants who agreed to take part in the study signed informed consent form. Participants had an average age of 59 years and diagnosed for a period of 9 years.

The study looked at the following measures; “coping style, perceived stress, diabetes and general health status, perceived diabetes competence, self-efficacy, perceived barriers, social support, spirituality and church involvement” (Samuel-Hodge et al., 2008).

On coping styles, 3 aspects were measured which centred on 1) emotive coping using emotional approaches including “worrying, getting mad, being nervous or depression”, 2) passive coping which centres on methods such as “acceptance” and 3) active coping such as the use of “actions or making plans to act” (Samuel-Hodge et al., 2008). “Perceived stress aspect” of the measure focused on the extent to which a situation was considered stressful.

Diabetes and general health status measurement looked at the social as well as psychological and physical symptoms analysis. In addition, “the perceived diabetes competence and self-efficacy” measure centred on the “persons’ perceived level of behavioural control in managing diabetes” (Samuel-Hodge et al., 2008). Particularly, these looked at the “positive diabetes competence, negative dietary competence, and negative diabetes control”. The problem areas in diabetes measured “feelings related to living with diabetes as perceived in the previous month”. Diabetes self-efficacy focused on the extent to which the patient feels she or he performs diabetes related behaviours such as “diet, exercise, self monitoring, taking medications and examining the feet” (Samuel-Hodge et al., 2008). The “spirituality and church involvement” scale looked at spirituality of the participants and their beliefs regarding prayers and the role of God in health and healing and individuals’ involvement in church activities. Physiological assessment considered glycated haemoglobin (HbA1c) of the participants, weight, and blood pressure. The extent to which participants were actively involved in physical activity was measured under the physical activity domain. Lastly, the

number of days the participant followed diabetic diet was also measured, avoiding fat, consuming foods in right and recommended portions were also assessed during the data collection.

In terms of demographics, the findings indicated that those older participants as well as respondents with lower levels of education employed passive coping strategies more frequently. In addition, among the unemployed participants, passive and emotive coping styles were employed more frequently. In terms of spirituality and church involvement, it was also found that “frequent use of passive coping was directly related to beliefs that one’s health is mostly in God’s hands” as these individuals are African Americans who are so inclined to their faith (Smalls et al., 2012) and that such individuals are likely to employ passive coping method which do not remove or tackle the root cause of the problem. The more “active coping styles were rather associated with fewer church services attended monthly” The reason for this is that, because of less church activities and services during the period, diabetics had adequate time to attend to their health needs, and therefore the need to search active coping in their diabetes care (Samuel-Hodge et al., 2008). In addition, Kalsen et al., (2004), also noted that older patients with type 2 diabetes with low educational status use passive coping methods in dealing with their problems and that is why probably in this study older African Americans employed passive coping styles. It was also found that participants who used emotive coping styles also alleged to have higher levels of stress, experienced more problem areas in diabetes and had negative assessment of diabetes control. Active coping was also reported among diabetics who followed the right diabetic diet. In addition, regular use of active coping methods, elevated dietary self-efficacy, and reduced BMI were associated with following a meal for diabetics on majority of days of the week. Findings of their study also indicated that more encouraging mental well-being was autonomously described and

explained by less employment of emotive coping strategy and more regular church activity involvement.

The findings of their study propose that diverse coping strategies are employed in adjusting to different facets or dimensions of living with diabetes, with more active types having a more helpful effect on self-care behaviours and less active approaches being useful to emotional outcomes (Samuel-Hodge et al., 2008).

A critical analysis of this study revealed limitations as study sample was employed by convenience sampling method and so it may be difficult to generalize the findings to a larger population of African Americans with type 2 diabetes. Despite this limitation, this study provides a platform upon which further studies can be done to identify relationship between coping and living experiences of individuals with type 2 diabetes, which is a gap, and none of the two studies have addressed.

The similarities between the two studies are that, both Samuel-Hodge, Watkins, Rowell and Hooten, (2008) and Smalls et al., (2012) are all quantitative studies which were aimed at identifying associations between coping methods used by type 2 African Americans and their Self-Care behaviours. With regards to the association between emotional coping and self-care behaviours in African Americans, Smalls et al., (2012), noted that there is a significant relationship between emotional approach to coping and self-care behaviour in adult patients with type 2 diabetes mellitus, where as findings from Samuel-Hodge and colleagues study in 2008 showed that varied coping strategies are employed in adjusting to different situations when living with diabetes, with active coping approaches usually having meaningful effect on self-care behaviours. Similarly, it has been noted that individuals actively expressing their emotional experiences were also positively related to behaviours of self-care (Smalls et al., 2012). Findings of the two studies indicated that as African Americans, spirituality had effect on their living with type 2 diabetes. This is because as African Americans, religious activities

or spirituality is a predominant coping effort among them (Samuel-Hodge et al., 2008; Smalls et al., 2012) , and that they also have strong family and individual cohesive bonds as well as powerful value structure and system associated with intrinsic coping skills. In both studies, a participant not able to speak the English language and having complication of diabetes were used as exclusion criteria to be part of the study. However, the two groups were recruited from quite different places. Participants from Samuel-Hodge and colleagues' study in 2008 were from 24 church groups, while those in Smalls et al., (2012) were recruited from 2 clinic sites.

It should however be noted that, by general definition of emotional coping strategy, the researcher knows that emotional coping usually leads to negative outcomes (Folkman and Moskowitz, 2004). But according to the findings of Smalls et al., (2012) as the researcher has noted above, there is a significant relationship between emotional approach to coping and adherence to medication, knowledge associated with diabetes as well as self-care behaviour in adult patients with type 2 diabetes mellitus. It is also noted that individuals actively speaking their emotional experiences was also positively associated with behaviours of self-care (Smalls et al., 2012). Austenfeld and Stanton (2004) have challenged the usual negative perception and observation of the emotional method of coping. They mention and argue that the questionnaire used to measure emotion are probably biased with items allied with "distress" as well as "negative outcomes" (Austenfeld and Stanton, 2004). They have offered another model to examine the concept of emotion coping by offering two major components to assess emotion. These are Emotional Processing (EP) as this model tries to assess emotions without taken into considerations the distress that the individual experiences. The Emotional Expression (EE) considers "active verbal or non verbal efforts to communicate emotions" (Austenfeld and Stanton, 2004).

People with chronic conditions such as cancer, diabetes mellitus and similar other conditions have many emotional challenges including anxiety, depression or distress. In order to reduce these challenges, these patients rely on diverse range of coping strategies which are capable of reducing distress associated with living with the chronic condition (Han et al., 2008).

Another study by Junghyun Kim et al., (2010) has looked at the availability of social support and its association with coping strategies and the resulting effect on emotional well-being of breast cancer patients. The study identified 231 economically deprived women with breast cancer for the study, between May 2001 and April 2003, from a rural setting in Wisconsin and Detroit. They had mean age of 51 years of age and most of them with secondary school education. Participants were asked to give baseline information prior to the commencement of the study. These centred on patients' perceived coping approaches such as self-blame and positive reframing, the social support available to them, and quality of life and socio-demographics as well as the features of their disease condition. Their study centred on two specific coping strategies, which were self-blame; focusing on issues such as whether the patient has been condemning him or herself and positive reframing - considering whether the patient has been trying to "see it in different light" or to make the problem look as if it is more positive (Junghyun Kim et al., 2010). Two hypotheses were formulated to guide the study. These were 1) "The more social support people receive, the more they will use positive reframing as coping strategy, and the less they will use self-blame as a coping strategy" (Junghyun Kim et al., 2010). 2) "The association between perceived social support and emotional well-being is mediated by their choice of positive reframing or self-blame as their coping strategy" (Junghyun Kim et al., 2010).

Junghyun Kim et al., 2010 based their measurement for emotional well-being on how many times the participant, for instance felt sad or became nervous (Gustafson et al., 2005). Social

support received were measured based on whether they had people to rely on in times of need or whether there is someone to count on for emotional support. Positive reframing was assessed by focusing on issues such as whether the breast cancer was perceived as something good coming out of it or not and also seeing breast cancer differently. Self-blame was measured based on issues such as whether the patient has been criticizing self or not for the occurrence of the cancer.

Findings from the study indicated that there is a connection between social support, positive reframing, self blame, and emotional well-being of people with chronic conditions such as cancer (Junghyun Kim et al., 2010). There was strong and positive association between social support and well- being of the patients. In addition, there was positive connection between positive reframing and well- being of the participants (Junghyun Kim et al., 2010). Also there was positive association between positive reframing and social support of the patients (Junghyun Kim et al., 2010). On the other hand, there was negative association between self-blame and emotional well-being. Similarly, negative association was identified between self-blame and social support (Junghyun Kim et al., 2010). Though the study is not on diabetes, it may have implication for diabetics.

The reasons behind such associations have been attributed to the fact that, individuals with social support are likely to avoid self-blame but rather may perceive a positive outlook of their problem, which is likely to translate into quality of life of the affected person (Junghyun Kim et al., 2010). In practical sense, social support can serve as a “coping assistant” or augment other coping approaches to the extent that support people receive from other individuals may affect patients’ endeavours to manage their psychological as well as physical problems (Junghyun Kim et al., 2010). For instance family and significant others or friends may suggest means to manage one’s psychological or physical challenges associated with diabetes. Even at times other people decide to take part directly in other patients’ attempts or

efforts to manage a problem. In this case social support has direct tendency to facilitate and strengthen confidence of persons over their predicaments (Junghyun Kim et al., 2010). A sense of confidence is likely to facilitate diabetics coping endeavours which may help them depend on active coping methods such as positive reframing and not depend on passive coping approaches such self-blame (Junghyun Kim et al., 2010).

The study findings are important as they inform us about the need to ensure availability of social support as it is paramount in determining quality of life of individuals with chronic conditions such as diabetes and cancer. High levels of social support may be directly related to high emotional well-being. Lessons can be drawn from this study because diabetics can associate with other people who can supply social support so that their emotional well-being or quality of life may be improved. Again, diabetics may be receiving quality medical care and treatment; however social support may offer a critical role to facilitate the medical care they receive from healthcare providers.

A limitation of the study may be related to the cross sectional nature of the study with regards to data collection. Due to the cross sectional nature of the study the level or the direction of causality could not be assured. In addition, specific social support systems were not identified in this study which helped other specific coping methods such positive reframing to achieve an improved emotional well-being.

There are similarities and differences between the studies we have reviewed so far.

Both Samuel-Hodge et al., (2008) and Smalls et al., (2012) were aimed at identifying associations between coping methods used by type 2 diabetics and their self-care behaviours. There was a direct association between emotional coping and self-care behaviours (Smalls et al., 2012); whereas findings from Samuel-Hodge and colleagues study in 2008 noted that different coping strategies are used in dealing with different situations. It was however noted

that individuals actively expressing their emotional experiences were also positively related to behaviours of self-care (Smalls et al., 2012).

Whiles Samuel-Hodge et al., (2008) and Smalls et al., (2012) looked at coping in relation to its effect on self-care behaviours, (Junghyun Kim et al., 2010) examined the influence of social support on the specific coping strategies, namely self-blame and positive reframing and their outcome on emotional well-being. In Junghyun Kim et al., (2010) social support was seen as very instrumental on how coping worked in the two situations in defining emotional well-being. Junghyun Kim et al., 2010 identified social support as an “assistant coping” factor but the others did not as social support was seen as augmenting other coping methods to achieve better emotional well-being.

In summary, the three studies reviewed above tried to look at the relationships between coping strategies and self care behaviour as well as effect of social supports on coping styles and their overall effect on the quality of life or emotional well-being. In all there are relationships between social support, coping strategies and emotional well-being. In addition there is relationship between coping style and self-care behaviours of patients.

What is missing is the psychological effect such as counselling on dealing with patients concerns. In addition what seem to have not received enough attention are the processes involved in coping approaches. In addition, how culture affects coping methods seems to have not received much attention. Further, relationships between perceived causes of diabetes, social meanings, and reaction to the diagnosis and coping approaches have not been studied.

From the researcher's observation as a nurse in Ghana, people tend to give emotional support to individuals who are in one way or the other affected with stressful experience. These are usually given in the form of advice and counselling called in the Ghanaian Twi language as "afutusem" to the individual who is confronted with the bad experience such as illness or death of a family member to reduce stress and tension. This is also demonstrated when individuals are sick and admitted at the hospital or are confined to bed in their homes due to illness situations. People visit such individuals and offer them the needed emotional support, even at the point of critical illness and death, love ones and family members would like to pay visit to the sick people and offer emotional support, such as words of encouragements also termed as "awerekyekyesem" in Ghanaian Twi language before the ultimate happens. Words of encouragements such as "the patient will be fine", "the patient will be good enough", "the patient will be healed or cured" are at times said to the patient suffering a disease condition. These words of encouragements may be deceptive in some cases especially when patients are suffering from a terminal condition and there are indications that the patient may pass away.

We have been looking at the interactions between coping strategies, self care behaviour and availability of social supports on overall outcome on the quality of life. Lessons from the reviewed studies indicate that there are connections between social support, coping strategies and self-care behaviours as well as emotional well-being of individuals under stressful situations.

The subsequent section looks at the significance of social support systems in the care of patients with chronic conditions, taking into consideration the strong social bonds and cohesiveness among Ghanaian people.

2.6iii. Seeking Social Support as a Coping Strategy (c)

Social support is the help or assistance people receive from other individuals or persons in different forms in times of need.

One of the studies done to identify social support use among adults with diabetes was carried through a systematic literature review approach to assess studies published within seven year period, from 2006 through April 2013 (Kirk et al., 2013). The research targeted studies done in the United States of America and Europe within that period of time.

The study was carried out by exploring PubMed, Medline and Cochrane records by using search words such as “social support” and “diabetes mellitus” as well as “type 2 diabetes”.

The inclusion criteria for the study were studies published in the English language, studies on diabetes with adult patients more than 19 years, and should have been published within 7 years from 2006 to April 2013 (Kirk et al., 2013). Exclusion criteria for the search were studies on children with diabetes and persons with gestational diabetes as well as patients at risk of developing diabetes mellitus. Studies on both qualitative and quantitative in nature were all accepted during the search. In all the number of citations which met the inclusion criteria for the review stood at 33.

The findings of 12 manuscripts of the review indicated that the role of family as well as friends have crucial role to play in the care of diabetics. This is because family as well as friends are frequently eagerly and readily available and may be financially sound to offer support to the patient (Kirk et al., 2013). In addition, Chlebowy, Hood and LaJoie (2010) mentions that families as well as friends may provide support to assist diabetics in order for them to rise above social barriers in meeting their daily needs, and carrying out multifaceted self-management actions, such as meal planning, sugar testing, injection of insulin, feet examination and doing physical exercises. Most of these activities usually and often occur in our social places or settings. Again, behavioural modification in diabetics may not be

undertaken by the patient alone. Assistance and support which they receive from family and friends may influence their self-management behaviours in a positive way (Chlebowy, Hood and LaJoie, 2010).

Other aspects of social support which the remaining studies considered, centred on peer groups as well as the use of technology to enhance healthcare of diabetics. The reason why support from peers is important is the fact that these help in the everyday management of the condition in that peers may offer psychological support as well as social support (Fisher et al., 2010). They may also connect diabetics to the medical care. The use of technology or the electronic means to contact patients enhance the patients' chances to keep an eye on their diabetes clinical manifestations to ensure prompt and early management (Kirk et al., 2013). The reviewed work above considered the effect of social support on individuals with type 2 diabetes mellitus. The main social support systems identified in the study centred on support from friends and family as well as peer support and technological support. Each of these factors has meaningful influence upon diabetes self-management and may be translated into quality of life of diabetics.

The findings are important as they explicitly indicate that medical care alone may not help the patients but with other support services as complementary, these patients may be able to self-manage.

The limitation of the study is that only work published in English were selected. There may be equally similar and better studies in other languages which should have been considered. Specific supports from family and peers as well as friends and media were not disclosed in the study. The study however did not examine the effects of culture on the type of support services that are provided to people with type 2 diabetes. This is a gap which needs to be investigated.

A review by Kadirvelu, Sadasivan and Shu Hui (2012) investigated the relationships between self-management among people living with type 2 diabetes and social support, support received from healthcare providers, significance of support from friends and family, the effects of sex and culture, the value of peer support, as well as the role literacy plays in self-care. Individuals with diabetes have daily activities which are required to be performed to make sure that the condition is under control. These activities are intended to ameliorate their general health and also to make sure that they are able to manage the psychosocial issues associated with the condition. Diabetics experience self-management challenges as they need to integrate these activities into their daily routines (Odegard and Capoccia, 2007). As compared with other chronic disease conditions, type 2 diabetes has lot of self-management constituents (Kadirvelu, Sadasivan and Shu Hui, 2012). These are activities which the patient is required to perform including blood sugar checks, meal planning, involving in exercises, noting manifestations of diabetes and reacting to them, weight reduction as well as cessation of smoking, taking care of reactions to illness and maintaining interaction with family and significant others (Kadirvelu, Sadasivan and Shu Hui, 2012).

Findings of the paper indicate that the role of social support in diabetes management has shown positive effect on glucose level in type 2 diabetics. This is because, the people around the patient such as family members and friends as well as significant others make available, considerable amount of information that the patient needs on diagnosis of the condition, medication, complications as well as what the patient may anticipate about the condition, and that patients having the right information about the treatment, diagnosis, and complications is likely to ensure better glucose level (Winocour, 2002). In addition to the reasons given above, it is noted that support from friends, family, peers and other social networks are likely to render psychological support such as cognitive support in the form of information given to

patients, knowledge, counselling, and the provision of material resources to cope with (Kadirvelu, Sadasivan and Shu Hui, 2012).

The study findings also indicate that emotional support for patients also offered hope and comfort and modified stress state and substantial physical effect that the patient experienced (Kadirvelu, Sadasivan and Shu Hui, 2012). Kadirvelu, Sadasivan and Shu Hui, (2012) also identified social support serving as “support for coping” which helped the patient to manage stressful situations as well as to follow treatment, and lowered the possibility of anxiety and tension leading to impoverished health and its resultant poor quality of life as already pointed out by Junghyun Kim et al., (2010) who found social support as an “assistant coping” factor supplementing other coping methods, such as positive reframing to achieve better emotional well-being.

The study findings of Kadirvelu, Sadasivan and Shu Hui, (2012) also indicated the role of healthcare providers in ensuring positive diabetes self-management practices among type 2 diabetics. This is because; care providers enhance self-care in diabetics by performing patient-oriented actions. For example patients who focused on the health providers’ for assistance and support, the result showed that such patients exercised better self-management practices. For instance Gensichen et al., (2009) documented that their patients experienced better self-management when their healthcare providers exhibited high communication abilities, because they assessed the content of information delivered to the patients, evaluated the patients’ understanding of such information, and tried to understand the patients’ views on information delivered to them. The study findings of Kadirvelu, Sadasivan and Shu Hui, (2012) in addition indicated that the support patients receive from healthcare providers is crucial as it provides opportunity for patients to be able to perform precise diabetes-control behaviours. The finding is important in the care of patients with chronic diseases such as diabetes. This is because the finding proposes the importance of outreach and home visits by

healthcare providers in the management of patients with chronic diseases. In addition, the support from family members is also paramount in their care.

Apart from the support from medical staff which enhanced patient's self-management, the study also identified support from family and friends which diabetics received and centred on emotional as well social support. Family and friends support also centred on helping the patients do blood glucose testing and meal planning and medications among other daily routines (Kadirvelu, Sadasivan and Shu Hui, 2012). However, the study found that some people use religion in social coping in terms of culture (Kratzer, 2012) but this will be covered under spiritual influence on coping.

It was also observed that the exact effect of sex on self-care behaviour were not mentioned in Kadirvelu, Sadasivan and Shu Hui, (2012) study but an example was drawn from an African American community, where it was identified that the self-care behaviours of adult women living with type 2 diabetes were affected by the social role of the women. The reasons were that these African American women have greater household obligations and responsibilities, and as such the women experienced poor self-management and reduced quality of life (Carter-Edwards et al., 2004).

The study also found that peer support is crucial for the management of diabetes. Peer support is a type of programme or support which is intended to get help from people who are not professionals but who are diabetics or people who have some ideas in the management of diabetes, to give a hand to patients in dealing with their diabetes. In this case peer support serves as a link connecting the healthcare provider and the patient (Paul et al., 2007). In Kadirvelu, Sadasivan and Shu Hui, (2012), peer support was identified as a factor which provided emotional support, social as well as realistic practical help for diabetics to maintain

their condition and stay healthy. This is because it can augment and improve other healthcare services in order to aid individuals with chronic conditions, such as diabetics to pursue treatment and management strategies on a daily basis, be enthused, and deal with challenges associated with chronic disease, and to continue interacting with healthcare professional in order to meet their health needs. However, there are limitations in the use of peer support in coping as there may be lack of training for peer workers as well as lack of support for the group members. In some cases, peers may not have support and recognition from the staff of other institutions which work closely with them (Kadirvelu, Sadasivan and Shu Hui, 2012).

The study also identified the relationship between health literacy and diabetes self-care. Health literacy is defined as the extent to which people are able to access, value and make use of health information, as well as other services required by them to be able to make the right and purposeful health choices. In this way the individual may be able to promote, improve or advance and keep up health (Public Health Agency of Canada, 2014). The paper pointed out that insufficient health literacy is a problem associated diabetics which is coupled with appalling diabetes knowledge and less self-care activities. In addition, inadequate health literacy led to complications among diabetics which had multiplier effect on healthcare costs (Kadirvelu, Sadasivan and Shu Hui, 2012). Diabetic patients were also not able to understand physician's treatment instructions due to limited health literacy. The overall effects were that these diabetic patients had poorer glycaemic control (Kadirvelu, Sadasivan and Shu Hui, 2012). The reasons were that the patients were not empowered by increasing their knowledge to be able to understand the value of treatment. Further, their skills which are necessary for them to be able to carry out some health activities were not enhanced and that affected the level of health literacy. This finding is important as it reminds healthcare providers to try as

much as possible to communicate with their patients and clients in simple language, and offer patient health education based on their unique needs.

The findings from Kadirvelu, Sadasivan and Shu Hui, (2012) have demonstrated the extended effects of several social factors on diabetes self-management, and its implications for healthcare providers, however the study did not show the type of family used in this case for social support. The effects of extended family system as a social support elsewhere may be different from the effects of nuclear family system on diabetes self-care and management. For instance, in the researcher's experience as a nurse has observed that, Ghanaians practice extended family system. For this reasons, family members who fall sick are obliged to receive some level of care from other family members. It becomes family members' responsibility to provide such social support for the upkeep of the affected person. For this reason, the level of support may differ from culture to culture and this may impact the level of self-care among people with chronic diseases including diabetics.

The two reviewed studies Kadirvelu, Sadasivan and Shu Hui (2012) and Kirk et al., (2013), both set off to investigate the role of social support in diabetes self-care and management. However, the study by Kadirvelu, Sadasivan and Shu Hui (2012) investigated specific interactions between self-management among people with type 2 diabetes and factors such as social support, support received from healthcare providers, significance of support from friends and family, the effects of sex and culture on self-care, the value of peer support, as well as the role of health literacy in self-care. Central to their findings, the two studies found that social support received by patients usually come from family members, friends as well as peers. Varied reasons were given as to why patients such as diabetic receive support from family and friends. One of the basic reasons is that family members as well as friends are the

main people who usually live close to their patients. Some of the family members may live in the same home with the patient or in close proximity to the patient.

However the two studies differ on other factors which serve as factors of social support.

Whereas Kirk et al., (2013) highlighted the value of social media as playing a key role in social support system for diabetics, Kadirvelu, Sadasivan and Shu Hui (2012) were silent on social media as one of the social support systems used by diabetics. Exclusively, Kadirvelu, Sadasivan and Shu Hui (2012) however identified other social support factors which other researchers have not mentioned but have influence on self-care behaviours of type 2

diabetics. These were support received from healthcare providers, the effects of sex and culture, as well as the role health literacy plays in self-care and management of diabetes.

In addition both studies recognised social support as “assisting or supporting coping” in order for patients to self-manage. For instance, social support in the form of financial assistance for patients or material resources such as supply of glucometers for diabetics will go a long way to supplement the medical care offered by nurses and doctors.

There are connections in the findings of the two studies. The findings point to one direction.

The dimensions of the various social support systems identified in the studies show that there is strong relationship between social networks including the role of the family, friends, peers, healthcare providers, culture and sex, health literacy and diabetes self-care and management.

The final effect of such relationships will define the overall quality of life of the patient, in that the availability of social support and networks are likely to improve patients’ quality of life (Kadirvelu, Sadasivan and Shu Hui, 2012).

In a cross sectional study by Vaccaro et al., (2014), the role of family members as well as friends on type 2 diabetes self-management were investigated. The participants of the study were type 2 diabetics among ethnic minority groups comprising 174 Cubans, 121 Haitians

and 110 African Americans. The findings from the study showed that there was an association between family support and diabetes self-care management (Vaccaro et al., 2014). It was identified that adequate social support was associated with advanced diabetes self management irrespective of the ethnic background of the participants. Though specific reasons for this association were not given in this study, but it has also been pointed out in other studies such as one conducted by Keogh et al., (2011) that the provision of social support was instrumental in improving the health of type 2 diabetics who experienced poorly controlled condition. As a result there were improvements in their glycated haemoglobin levels (HbA1c). In addition, in the opinion of the researcher as a clinical nurse, has observed that diabetic patients who adhere to dietary as well as exercises advice from their healthcare providers do experience glucose controls.

Actual or specific support from the family members and friends were not identified in this study, nevertheless the study informs us that family/friend support for individuals with diabetes has high tendency to affect diabetes self-care positively.

As compared with the two studies above on the value of social support in diabetes self-care, Vaccaro et al., (2014), however indicated that the number of friends that someone has may also affect the level of support, which none of the two studies, Kadirvelu, Sadasivan and Shu Hui (2012) and Kirk et al., (2013) found. This may also buttress the opinion of the researcher as a nurse that in Ghana, the number of family members may also go a long way to affect the level of support received by patients.

Though the Kadirvelu, Sadasivan and Shu Hui (2012) and Kirk et al., (2013) mentioned the value of peer support in diabetes self-management, Vaccaro et al., (2014) did not mention peer support as a component of social network in diabetes self-management.

Among the studies reviewed under social support, it is only Vaccaro et al., (2014) who distinguished between 2 aspects of social support which include “functional” as well as

“structural” (Vaccaro et al., 2014, p. 1). Kadirvelu, Sadasivan and Shu Hui (2012) and Kirk et al., (2013) did not mention these categories. The “functional social support” explains the extent to which social relations and interactions among people provide emotional and informational support Vaccaro et al., (2014). The “structural social support” shows the nature and number of family members as well as number of friends and peer groups the patient is connected with, and this to some extent may determine the level of connectedness and support Vaccaro et al., (2014).

Central to the three studies reviewed, namely, Kadirvelu, Sadasivan and Shu Hui (2012), Kirk et al., (2013) and Vaccaro et al.,(2014), the term social support mainly hovers around support from family and friends and environmental factors including the effects of media, health literacy, peer support and medical care, services and culture. The reviews on social support focused on the relationship between social support and diabetes self-care and management in the affected individual. The overall impression from the study findings are that there is direct relationship between the components of social networks and quality of life of people living with chronic conditions including diabetes mellitus (Kadirvelu, Sadasivan and Shu Hui, 2012). However, what are missing in these studies are the impact of specific components of social support systems within the social networks on diabetes self management. For instance, if we are talking about family support, what constitutes family support, support from friends, as well as support from peers? Again, what are the major components of the medical care support services do diabetics receive which affect diabetes self-care. It seems to the researcher that findings from the various studies reviewed are generalizing the terms (for instance social support, support from friends, and support from family) without considering the specifics within the individual social networks as defined in the various studies.

In the researcher's experience as a nurse in Ghana, has observed that there is high sense of social cohesiveness and bond between patients and the family members, such that social support is likely to be provided to people who have disease conditions by their families. These may be in different forms such as gifts, monies, food, counselling and advice, emotional support and other donations from individuals and groups.

As a lecturer in Nursing and a registered professional nurse in Ghana the researcher is able to draw upon experiences of interactions with patients including those with chronic conditions such as diabetes and hypertension who encounter different experiences and challenges, as well as "living in different world" and with "different perceptions" which seem to have been influenced by culture and other factors. These suggest to the researcher that the coping strategies which may be employed by type 2 diabetics in Ghana may be different from those that are used by patients in the western world due to cultural and several other factors. This research seem to be the first of its kind on coping strategies used by type 2 diabetic patients in Ghana and also in the sub Saharan Africa which has the potential to bring out coping methods and styles employed by these individuals. As this study appears to be the first study on coping strategies in Ghana and also in sub Saharan Africa, the findings may fill the gap and also provide care givers a better understanding of how to care for these patients who employ such coping methods.

The literature review in this section identified the significance of social support from various sources such as family, friends, medical staff, peer groups as well as culture and other factors in determining patients' responses or reactions to type 2 diabetes mellitus.

The next section examines the literature review on spiritual coping with particular reference to religious belief system in Ghana.

2.6iv. Spiritual Coping Strategy (d)

Spirituality and religion have recently been recognised as important factors which people employ to deal with situations confronting them. In the researcher's experience as a clinical nurse, has observed instances whereby nurses as well as doctors and the clergy have worked as a team to provide spiritual care to patients and their families in the hospital where he worked. In most of such instances, it was either the patient or their relatives who requested for prayer support from the chaplaincy department of the hospital. In some cases the patient or the family members asked their own church pastors to come and offer prayers to the patient. Now, let us consider some research studies on spiritual/religious coping.

An Iranian study that considered the use of religion and coping with type 2 diabetes was conducted by Mazlom, Afkhami-Ardekani and Dadgari, in December, 2013. The study was done to identify the association between internal and external religion and coping with diabetes mellitus. 160 participants were recruited to take part in the study through a randomised selection, including 103 females and 57 males, aged between 20 and 60years old, all type 2 diabetics. Two types of questionnaire were used to collect data from the study participants. These were questionnaire based on religion orientation and questionnaire on coping with diabetes.

The findings of their study showed that among the women, there is an important association between "internal religion orientation and coping with diabetes" (Mazlom, Afkhami-Ardekani and Dadgari, 2013, p. 35). On the other hand, findings indicated that "there was no association between external religion orientation and coping with diabetes among the women with type 2 diabetes" (Mazlom, Afkhami-Ardekani and Dadgari, 2013). Further, the results of the study showed that there was no association between "internal religion and external religion orientations and coping with diabetes among the men" (Mazlom, Afkhami-Ardekani

and Dadgari, 2013, p.36). In terms of gender and internal religion orientation, findings of the study showed that the reason for the difference is that women tend to belief in religion more than men (Heidari et al., 2009). Though, the reason is not completely understood by researchers, it is reported that women tend to be “obedient and offer flexibility in many situations” and that may account for the difference between men and women in religious coping (Heidari et al., 2009). Other studies have also noted that “people who are high in agreeableness are pleasant, empathic, and friendly” (Salomon, 2012). Evidence also show that people who show features of agreeableness may be religious (Salomon, 2012) and therefore according to Salomon (2012) women seem to have agreeableness qualities and are flexible in many situations.

Individual who “lives with his own religion” is said to have internal religion orientation (Mazlom, Afkhami-Ardekani and Dadgari, 2013). Such individuals are so inclined to their religion, and have much inspiration in that religion. However, individuals who are inclined to “external religion orientation” attach themselves to the religion in order to accomplish certain aspirations or ambitions. Individuals who have external religion orientation are so inclined to God devoid of disregarding themselves (Mazlom, Afkhami-Ardekani and Dadgari, 2013). The external religion orientation then becomes an extension of the internal religion orientation.

The findings of the study also indicated that, there is significant association between “internal religion orientation and relationship with friends in diabetic women” (Mazlom, Afkhami-Ardekani and Dadgari, 2013, p. 35). This is because; religion influences health in that the religion enlarges a person’s social associations and connections. For this reason the patient is likely to benefit from other members in the church, a form of social support from the church group (Mazlom, Afkhami-Ardekani and Dadgari, 2013). Though, the exact mechanism by means of which religion plays in coping has not been found, studies such as Koffman et al.,

(2008), on patients with advanced cancer, found that religion, as well as reliance and belief in God may be important factors which can help lower emotional as well as physical outcomes of the cancer. In addition to Koffman et al., (2008), a recent study by Monjezi, Shafiabadi and Sodani (2011), found that religious values and beliefs can have an effect on all facets of life including physical, psychological as well social. This is because; religious beliefs and doctrines may allow the person interpersonally to manage or control his temperament as well as annoyance or “anger physiologically, cognitively and emotionally”, and be able to assist him to acknowledge the responsibility of his behaviours and actions (Monjezi, Shafiabadi and Sodani, 2011). The researcher believes that this assertion may depend on the type of doctrines and teachings of the religion in question. For instance, in the opinion of the researcher as a nurse, and in my interactions with different patients with diverse backgrounds in Ghana, the researcher has observed that patients from certain ethnicities, and belonging to particular religious faiths are either temperamentally calm or radical. On this note, if the teachings or the doctrines dictate to individuals to be calm in situations, it is likely that, the religious beliefs may influence the person in question to interpersonally manage or control his temperament as well as annoyance or “anger physiologically, cognitively and emotionally”, in order to enable or assist him to acknowledge or accept the responsibility of his behaviours and actions. On the other hand if the teachings of the religion do not inform individuals to be calm under certain conditions, the religious beliefs may influence the individual not to be able to interpersonally manage or “control anger physiologically, cognitively and emotionally”, and may not be enable to acknowledge or accept the responsibility of his behaviours and actions.

As much as this study tries to illuminate the value of religious coping in type 2 diabetes, there are limitations of this study. The number of participants for the study was limited and they were patients who visited one particular hospital in Iran, hence generalization may not be

possible. Type 2 diabetics from other cities in Iran should have been recruited to take part in the study in order to generalize. The exact role of religion in coping is not yet conclusive, so there is the need to investigate the exact role of religious values and beliefs in coping with diabetes. It may also be important to study specific dimensions of religion in coping with diabetes mellitus. In addition, it may be equally prudent to research into the processes involved in the use of spiritual and religious coping by people living with chronic conditions, such as diabetes mellitus. Knowing these may be helpful for nurses and clinicians who interact with patients during spiritual care.

A cross-sectional study on the association between spirituality and religious beliefs as well as practices, social support systems and, diabetes self-care and management in 132 African Americans living with type 2 diabetes was also conducted by Watkins et al., (2013). Research participant were all recruited from a primary healthcare centre. Inclusion criteria centred on being diagnosed as type 2 diabetic, and confirmed by a doctor, participant to be 18 years or more, being African America, and able to provide informed consent based on sound mind. Exclusion in the study was being pregnant as well preparing to be pregnant, evidence of having complications from diabetes and being included in any diabetes research recently, as well as mentally not stable (Watkins et al., 2013). Data from the participants were collected based on the “computer-delivered baseline assessment” procedure (Watkins et al., 2013), after gaining approval for the study from the ethics committee of the University of Illinois at Chicago. Apart from the socio-demographic data from the participants, other measurements which were considered were spirituality and religion including social support, as well as diabetes self-care activities.

Spirituality and religious practices were assessed based on practices and spiritual beliefs and the level of social support received from the community in which the participants reside (Watkins et al., 2013). Religious practices as well as beliefs were defined as the extent to which individuals get sense of meaning from an existential viewpoint, the level at which persons make use of religious beliefs, practices and rituals including prayers, meditation and incantation, as well as spells and invocations to mention a few. In addition, the components of religious practices as well as beliefs included one's connection and affiliation with the divine being or the supposed superior power, like the almighty God (Watkins et al., 2013).

Similar to Mazlom, Afkhami-Ardekani and Dadgari, (2013), Watkins et al., (2013), encountered limitations with their study concerning a lack of generalization of the study results since the number of the participants, 132 was small, and from one primary care health centre. Findings from multiple sites would have ensured generalization, as the number of participants probably would have been a true representation of the population in the study areas. In addition, the study did not take into consideration the spiritual and religious affiliation of the research participants, as that might have influenced health behaviours of the participants.

There are similarities and differences in the two studies, Mazlom, Afkhami-Ardekani and Dadgari, (2013), and Watkins et al., (2013). All the findings in the two studies considered God as a source of power for the diabetics but as to how this belief helps in diabetes management is difficult to understand and assessed. This assertion is due to the fact that the two studies attributed to God as a higher power and strength and source of hope. Both Mazlom, Afkhami-Ardekani and Dadgari, (2013) and Watkins et al., (2013) considered "religion and religious beliefs as sense of meaning of life" but it is only Mazlom, Afkhami-

Ardekani and Dadgari, (2013) who categorized religion into 2, internal religion and external religion orientations and that a person who “lives with his own religion” is believed to have internal religion orientation (Mazlom, Afkhami-Ardekani and Dadgari, 2013). Such persons tend to be so closed to their religion, and have much encouragements as well as ambitions in that religion. On the other hand, persons who are inclined to “external religion orientation” attach themselves to the religion in order to accomplish certain aspirations or ambitions. Individuals who have external religion orientation are so attached to God without even regarding themselves (Mazlom, Afkhami-Ardekani and Dadgari, 2013). Further, Watkins et al., (2013) mentioned some constituents of religious practices as meditation and prayers which are important in coping with a chronic condition, however how these components help in coping with a chronic disease such as diabetes is difficult to understand. Mazlom, Afkhami-Ardekani and Dadgari, (2013) investigated men and women and identified their respective affiliations to internal and external religious orientations. Findings of the study show that women tend to belief in religion more than men (Heidari et al., 2009). The reason for this belief is not well understood by researchers, however we are informed that women tend to be “obedient and offer flexibility in many situations” and that may explain the difference between men and women in religious coping (Heidari et al., 2009).

In diabetes care, the ultimate aim is to achieve glycaemic control in the affected persons. The question is how will religious coping help to achieve this aim or objective. For example how will religious practices such as prayers and meditation as well as spiritual fasting help patients in coping with their diseases such as diabetes mellitus. Watkins et al., (2013) and Mazlom, Afkhami-Ardekani and Dadgari, (2013) did not consider these issues in their researches. Answers to these and similar questions regarding religious coping by patients are yet to be identified. Another issue is, what are the specific problems associated with living

with a chronic condition that religious coping can manage. These are some of the gaps, regarding coping which need to be researched into.

In another cross sectional study, Jafari et al., (2014) investigated the relationship between spiritual well-being; quality of life and depression among type 2 diabetics in Iran.

Participants, 18 years of age and above were recruited from two diabetic centres in Iran, who were diagnosed with type 2 diabetes by a physician, and also with or without complications of diabetes mellitus. Exclusion criteria were based on factors such as type 2 diabetics with renal disease, mental problems as well as vision problems and dementia (Jafari et al., 2014).

In all, 203 participants with type 2 diabetic were recruited and completed the questionnaire.

Data was collected by the use of questionnaire for quality of life which centred on physical well being, social/family well being, emotional well being, and functional well being. The scale for measuring spirituality focused on three main areas, namely, peace, meaning and faith (Bredle et al., 2011). Depression among the diabetics were measured based on the number of times the patient experienced depressive moods as well as “anhedonia” over a two week period on scores such as “not at all” to “nearly every day” (Lowe, Kroenke and Grafe, 2005, p. 165). Long term control of diabetes was assessed using glycated haemoglobin levels (HbA1c). Participant’s glycated haemoglobin levels of less than 7mmol/l was regarded a controlled condition whereas level greater 7mmol/l was considered as not well controlled (Jafari et al., 2014). Data collected were analysed using statistical package for social sciences (SPSS) version 12.

Findings of the study showed that “higher meaning and peace were related to better physical, social, emotional, and functional well being as well as quality of life, whereas higher faith was only associated with physical well being” (Jafari et al., 2014). However, according to Yanez et al., (2009), religious faith may serve as a facilitative factor or barrier to adaptation

or adjustment (Yanez et al., 2009). For example religious faith as a barrier to adjustment may be associated with negative religious coping as a patient may perceive or have belief that his “chronic illness is a punishment from God or God’s abandonment”. In the opinion of the current researcher, as a nurse in Ghana, one of the reasons why patients with such inappropriate behaviours (that is, chronic illness is a punishment from God or God’s abandonment) are not able to adjust well with their chronic condition is that, such patients usually end up in prayer camps for prayers and fasting as a way of treatment for their chronic conditions such as diabetes, hypertension and cancers but later some of them develop complications and report back at the hospital. Edmondson et al., (2008) investigated the essence of religion on sense of meaning and noted that “religious faith is beneficial to the degree to which it facilitates the creation and maintenance of meaning, coherence and purpose” (Edmondson et al., 2008). On the other hand, religious faith, practices as well as teachings on specific issues may fail to offer “meaning” or provide meaning which is unhelpful or negative, such as “God does not love me”. Such beliefs or perceptions are not effective and harmful to well being of the person (Edmondson et al., 2008), but how such statements affect the well being of the person is not well communicated.

Jafari et al., (2014) focused on dual roles of religious faith in coping with a chronic condition. The study shows that religious faith has both positive and negative effect on coping. Individuals who employ negative religious coping for instance may have belief that prayers alone will help and refuse to go to hospital for treatment and that shows a detrimental role of religion in coping with a condition (Edmondson et al., 2008).

In addition the three studies noted “religion and religious beliefs as sense of meaning of life” (Mazlom, Afkhami-Ardekani and Dadgari, 2013, Watkins et al., 2013), and Jafari et al., (2014). Further all the three studies ultimately point towards the achievement of glycaemic

control in the affected persons but the pathway to achieve this is not straight forward and not well understood.

Similar to the findings of Jafari et al., (2014), Chew Boon How, Khoo Ee Ming and Chia Yook Chin (2011) looked at the influence of religion on HbA1c level in type 2 diabetics. Just as religious faith has implications on coping, religious affiliation also influence HbA1c of type 2 diabetics. According to Chew Boon How, Khoo Ee Ming and Chia Yook Chin (2011), religion has been identified to be associated with HbA1c levels of patients with diabetes mellitus. In their study it was found that atheist, Christians as well as Buddhist and Roman Catholics experienced lower levels of HbA1c as compared to other people from different religious orientations. In their research, Christians experienced the lowest levels of Fasting Plasma Glucose levels as well as HbA1c, followed by the atheist (Chew Boon How, Khoo Ee Ming and Chia Yook Chin, 2011). In their study, it was identified that some of their participants were atheist as well as Buddhist who were Chinese who had higher levels of Fasting Plasma Glucose and HbA1c as compared with Christians some of whom were Indians. They also found that the Chinese in their study were older adults with minimal religious affiliation, yet they experienced lowest HbA1c as compared with other groups in their study. This was followed by Indians and Malaysians who took part in the study. This is in line with a study in Singapore in which Chinese participants in the study experienced reduced and well controlled glycaemic levels (Hong et al., 2004). However, it is not well understood whether the Christian religious belief or ethnic background as Chinese served as a factor for the improved glycaemic control in the participants. Importantly, it is noted that Chinese are found to be so concerned about their health, who usually engage in lot of exercises and so experiencing improved glycaemic levels might have resulted from their regular exercises (Chew Boon How, Khoo Ee Ming and Chia Yook Chin, 2011). This means

that, experiencing improved glycaemic control may be related to religious orientation or beliefs or as a result of better lifestyle which may be associated with religion or not (Chew Boon How, Khoo Ee Ming and Chia Yook Chin, 2011). Similarly, other factors which their study did not consider such as differences in culture, socioeconomic factors as well as the effect of healthcare system in general, personal as well as biological or genetic factors, and level of insulin tolerance or sensitivity might have affected the glycaemic levels of these patients (Gregg and Saha, 2006).

It was also found from their study that Moslem participants experienced the maximum level of Fasting Plasma Glucose as well as HbA1c as compared to other religious groupings. This suggested a poorer glycaemic control among Muslims. Bodenheimer, Wagner and Grumbach, (2002) pointed out that, the reasons for this trend among Moslems may be that “Moslems believe in submitting to the will of Allah and thus they may not take as much care of their glycaemic control but may leave it to fate” or as result of destiny (cited in Chew Boon How, Khoo Ee Ming and Chia Yook Chin, 2011, p. 26). Naeem (2003) noted that Kashmiri men with diabetes who were Moslems were not able to self-manage due to their personal attitudes and perceptual beliefs that every predicament or problem belongs to God. However, according to Ali, Liu, and Islam, (2004), among the Moslem groupings, individuals with stronger religious affiliation and orientations were associated with reduced HbA1c levels regardless of their increased body weights and lack of physical activity which impacted on Body Mass Index (BMI). The reason is that this could have been linked to the influence of “religiosity on glycaemic control as the will and motivation are important elements in successful diabetes self-care” (Ali, Liu, and Islam, 2004, as cited by Chew Boon How, Khoo Ee Ming and Chia Yook Chin, 2011, p. 26). In addition, the finding could have been linked to

indirect impact of religious beliefs as well as practices on health in general and healthy behaviours (Chew Boon How, Khoo Ee Ming and Chia Yook Chin, 2011).

As we have already noted, Mazlom, Afkhami-Ardekani and Dadgari, (2013) examined men and women and their relationships or connection with religious coping. Findings of their study indicated that women tend to belief in religion more than men for coping, as women tend to be subservient and submissive in many situations (Heidari et al., 2009). As compared with Jafari et al., (2014), Mazlom, Afkhami-Ardekani and Dadgari, (2013) is looking at adaptation to chronic disease such as diabetes mellitus using religion in respect of men and women, whereas Jafari et al., (2014) also examined adaptation to chronic disease but at a different level, where religious faith, teachings, doctrines as well as practices either served as a barrier or facilitative factor for people with diabetes to cope and adjust well to the condition. In other words, Jafari et al., (2014) looked at religious practices and beliefs in coping as either negative or positive.

Chew Boon How, Khoo Ee Ming and Chia Yook Chin (2011) investigated the influence of religion on HbA1c level in type 2 diabetics, whereas Jafari et al., (2014) focused on dual roles of religious faith in coping with a chronic condition in either a positive or negative way. The two of them, Chew Boon How, Khoo Ee Ming and Chia Yook Chin (2011) as well as Jafari et al., (2014) never mentioned the role of God in diabetes control. However, Jafari et al., (2014) noted that “higher meaning and peace were associated with better physical, social, emotional, and functional well being as well as quality of life, whereas higher faith was only associated with physical well being” (Jafari et al., 2014).

Chew Boon How, Khoo Ee Ming and Chia Yook Chin (2011) clearly pointed out how religious affiliations, such as Christianity, Islam, Buddhism and Atheist and their respective practices and teachings, doctrines as well as ethnicity such as being Chinese affect the Fasting Plasma Glucose and Glycated Haemoglobin (HbA1c) levels. This means that, the

level of glycaemic control may be associated with the religious orientation, beliefs, practices, faith or as a result of lifestyle which may be associated with a particular religion (Chew Boon How, Khoo Ee Ming and Chia Yook Chin, 2011).

There are lessons that can be learnt from the 3 reviewed studies by Mazlom, Afkhami-Ardekani and Dadgari, (2013), and Watkins et al., (2013) as well as Chew Boon How, Khoo Ee Ming and Chia Yook Chin, (2011). In their studies Mazlom, Afkhami-Ardekani and Dadgari, (2013), and Watkins et al., (2013) identified God or divine power as a source of power and hope as well as inspiration for the diabetics in their self-care and management but as to how this belief helps in diabetes control and management is difficult to understand and measure. Probably, the other finding by Chew Boon How, Khoo Ee Ming and Chia Yook Chin, (2011) may give a better answer to the extent to which religion helps in coping as the level of glycaemic control may be indirectly associated with the religious orientations, beliefs, practices, faiths which may shape or regulate people's lifestyle in a positive way which may then be translated into better outcomes in terms of HbA1c or Fasting Plasma Glucose levels of patients with diabetes (Chew Boon How, Khoo Ee Ming and Chia Yook Chin, 2011). Further research into how a belief in God as a source of power helps in diabetes control and management would add value to this debate.

In summary, the study by Mazlom, Afkhami-Ardekani and Dadgari, (2013) looked at the adaptation to diabetes with regards to men and women on coping with religion. Findings of their study showed that women are liable to belief in religion more than men for coping. Jafari et al., (2014) although found adaptation to be significant in chronic disease management, on the other hand considered religious faith, teachings, doctrines and practices as a barrier or facilitative factors for people with diabetes to cope and adjust well to the condition. Chew Boon How, Khoo Ee Ming and Chia Yook Chin (2011) investigated the

influence of religion on HbA1c level in type 2 diabetics, such as the effect of religious practices, faith, beliefs as well as ethnic background and practices and culture on HbA1c. The findings of these studies, Mazlom, Afkhami-Ardekani and Dadgari, (2013), Jafari et al., (2014), Chew Boon How, Khoo Ee Ming and Chia Yook Chin (2011) and Watkins et al., (2013) show their connections with physical, social, emotional, and functional well being of persons affected with chronic diseases such as diabetes mellitus. The level of adaptation will define the type of well being of the affected person. Poor adaptation may be likely to lead to “diabetes related stress”. The level of glycaemic control in affected individuals to a large extent may determine the quality of life of the affected person, as poor glycaemic control may be likely to facilitate the development of diabetic complications which may affect the life of the person in general.

Further to religious coping, it was found that the use of religion in cognitive coping was paramount among elderly type 2 diabetics Mexicans (Hattori-Hara and Gonzalez Celis, 2013). In this instance the elderly patients who were Catholics tried to place their hope and well-being in the religious faith or in God and experienced improvements in their conditions (Hattori-Hara and Gonzalez Celis, 2013). Similarly, the use of religion was useful in social support in which Kratzer, (2012) found that diabetes patients acknowledged that their “source of strength is God” in that they considered the Supreme Being (God) as an important figure in diabetes self-care and management (Kratzer, 2012). However, how religion led to improvements in patients’ conditions in both Hattori-Hara and Gonzalez Celis, (2013) and Kratzer (2012) is not well understood. There may be the need to do further investigation in the area of religious coping.

The researcher has observed that Ghanaian people are very highly religious and seem to read spirituality into situations and events in every facet of their lives; therefore the use of spiritual coping by chronically ill patients like sufferers of diabetes is strongly envisaged by the current researcher as one of the major coping strategies likely to be used by participants of this study. In Ghana, almost every situation or event is attributed to spirituality, so there is a convincing hope that religiosity is likely to play a major role in coping mechanisms and health seeking behaviours of Ghanaian diabetics. In the researcher's experience as a nurse in Ghana, patients and their relatives have approached him asking for discharge from the hospital in order to go on with spiritual treatment such as prayers and fasting because their conditions were not meant for hospital but needed spiritual intervention.

In the previous section, we have examined the benefits of religious belief in coping with chronic diseases including type 2 diabetes, but the extent to which religious beliefs help in coping is not well understood, however it is perceived that reliance and belief in God may be important factors which can help lower emotional as well as physical outcomes (Koffman et al., 2008). However, it is noted that religion enlarges a person's social relationships and connectedness. In view of this there is likelihood that patients may benefit from other church members. This may be in a form of social support such as money and other tangible items to ensure their upkeep in times of stress (Mazlom, Afkhami-Ardekani and Dadgari, 2013).

The next section focuses on the extent of social and psychological factors in determining how patients diagnosed with chronic conditions including diabetes are able to self-manage, noting their implications for Ghanaian diabetics.

2.6v. Coping and Psychosocial Adaptation to Type 2 Diabetes (e)

The process in which patients with chronic diseases such as diabetes come to terms with the condition through manipulation of both external and internal factors in order to deal with the restrictions caused by the condition in a meaningful way is referred to as psychosocial adaptation (Reker and Woo, 2011).

Substantial literature has been reported on various factors that have impacted on adaptation to illness. Psychological stress such as depression and anxiety are said to be significantly associated with people living with type 2 diabetes as compared to individuals without the condition (Nichols and Brown, 2003). This means that individuals with type 2 diabetes may stand a higher chance for poor adaptation to psychological stress imposed on them by the condition (Nichols and Brown, 2003). The findings from Nichols and Brown (2003) centred on the effect of depression and anxiety on diabetics as to how it affects diabetics in adaptation.

In another research study to identify specific information needs based on sex differences, it was found that men of black descent wanted to know special influence that type 2 diabetes would have on their bodily and physiological functions (Wenzel et al., 2005). On the other hand, black women demonstrated the need to have access to precise and correct information and understanding of health workers' directives on the management and treatment of their type 2 diabetes (Wenzel et al., 2005).

Though the two studies by Nichols and Brown (2003) and Wenzel et al., (2005), are different, the findings of the two respective studies explain how the individuality is influenced by certain factors. Though they are different studies, but the extent to which individual factors influenced situations tell us the level or degree at which adaptation occurs. Whereas men in

Wenzel et al., (2005), study wanted to know the exact effect of type 2 diabetes on their bodily and physiological function, the women were rather interested in knowing specific and correct information from their healthcare providers. To the women, it meant they had different needs in terms of information. Nichols and Brown (2003) and Wenzel et al., (2005) are two different studies at different levels but the essence is the need to understand how people adapt to situations.

Fundamental and essential to coping and adaption to chronic disease is one's educational background and level. Black people whose educational background was high were noted to feel contented with their individual lives as compared with their counterparts in the more poorly educated group whose personal performance and their community roles are liable to be held back by type 1 and 2 diabetes. It has also been identified that persons with diabetes who reside in economically deprived communities, with lower educational status as well as experiencing 'cash and carry' form of health care financing, have high propensity not to perform their blood sugar assessment (Karter et al., 2000).

Nichols & Brown (2003) point to depression and anxiety whereas Wenzel et al., (2005) focused on information needs of black men with type 2 diabetes specifically, the information that will help them in their diabetes management, and women with type 2 diabetes on precise information needs for diabetes treatment, Karter et al., (2000) however considered how educational level of black people influenced their living standards despite living type 1 or type 2 diabetes mellitus. Comparatively, all the studies are considering specific issues as to how they helped or assisted diabetics to deal with their problems. The analysis points to the fact that in psychosocial adaptation to type1 or 2 diabetes, there are different factors which influence people in adaptation processes.

Similarly, a study by Degazon and Parker (2007) investigated coping and psychosocial adaption to type 2 diabetes in older blacks who were given birth in the southern USA and the

Caribbean. Data collected from the study were analysed using Spearman's rho correlation approach. Findings from the study showed that, persons originally born in Haiti and Jamaica used confrontative coping strategy. On the other hand emotive coping approach was employed by persons originally born in Barbados, where as women among the groups used palliative coping effectively. However it was noted that there was no gender differences for psychosocial adaptation (Degazon and Parker, 2007). These differences might have occurred due to cultural orientations of the groups involved in these studies.

As a professional nurse, the researcher interacts with different patients in Ghana including diabetics and in my observation with patients with different behaviours based on their religion, ethnicity, sexual orientation, and familial upbringing, the researcher has the view that, some of the factors we have identified in the literature review as to how they influence or determine the type of psychosocial adaptation and coping in stressful instances, such as educational level of diabetics, their financial status, birth origin or source, ethnicity and culture, gender as well as other related factors may have implication for Ghanaian type 2 diabetics. For instance, belief systems of the patients as well as their place of birth, either in the rural area or in the city may influence their health seeking behaviours. People with good educational background may understand the diabetes sequel in different way as compared with people with poor educational background. This may affect their adaptation and coping as well. If healthcare providers such as nurses are able to understand how these factors influence or affect or determine how these people deal or cope with their disease conditions like diabetes mellitus, it may help them to understand how to care for the patients. Such an understanding will help the health professionals to know the type of planning that should go into the patient's care. Understanding of these factors as to how they influence patient action will also help their healthcare providers to plan individualized based care for patients, which

may be related to age, gender, ethnicity, educational background, or even religion. In this way the patients may cope and adapt well.

Nevertheless, it appears that something is missing in the literature review in relation to the use of coping methods as to how these strategies or approaches or methods in reality affect diabetes as a disease condition affecting people. For instance, how do these approaches help the diabetic to bring the glucose level down during coping or how do they in the nutshell influence glycated haemoglobin (HbA1c) of the diabetic.

In researcher's understanding, it appears that the coping methods have indirect effect or influence on diabetes mellitus. For instance, patients who use positive coping methods or problem-oriented approach to coping are likely to attend hospital regularly, take their medications as directed by the doctor and avoid inappropriate health beliefs. All things being equal, these individuals may stand a better chance to have improved glucose levels.

With the broad socio-cultural and economic information provided in the Chapter one on Ghana, these may be important factors to consider in this Ghanaian thesis.

The synopsis of the studies reviewed under coping and psychosocial adaption to type 1 or 2 diabetes drive towards a particular direction. They have informed us about how several factors may influence people in adaptation. The lessons drawn from their findings inform us about individuality in coping and adaptation, such as how sexual differences, culture, emotional factors as well as educational background influence individuals in managing their chronic conditions.

The subsequent section of the literature chapter looks at the summary critique of specific studies reviewed under coping strategies employed by patients making an observation that none of such studies has been carried out in Ghana.

2.7 Theme (5) - Summary of Reviewed Literature on Coping Methods

In summary, literature from (a) cognitive coping strategies, (b) emotional coping strategies, (c) seeking social support as a coping strategy, (d) religious coping, and (e) coping and psychosocial adaptation to type 2 diabetes mellitus were reviewed. Among all the studies reviewed on coping strategies in this review, none were undertaken in Ghana. These studies were either conducted in the United States of America or Europe where cultural and other factors are quite different from the Ghanaian setting. These unique and remarkable differences may account for variations in the coping strategies employed by diabetic patients in these two geographical settings. Therefore there is the need to explore into coping strategies of patients newly diagnosed with type 2 diabetes in Ghana.

The studies reported in this review are descriptive in nature. Some are qualitative explorations and others are surveys with larger samples. Sampling techniques were purposive at best and convenient at worst. This makes the findings difficult if not impossible to generalize. In some studies trustworthiness of the data were accomplished through thick descriptions of participants' experiences of coping.

The overall lessons from the studies reported in this review indicate that positive and negative coping strategies influence an individual's ability to cope with psychological stress. People who use positive coping strategies deal with psychological stress more positively than those who employ negative coping strategies.

The succeeding section throws light on the influence of culture and other factors on health seeking behaviour of individuals, making reference to patients' health and illness situations regarding treatment choices based on other factors such as social, medical and economic to

mention a few. Additionally, the section below centres on detailed presentation and critical discussion of research studies on the influence of cultural health beliefs on chronic diseases, factors influencing/promoting the use of CAM as well barriers to its consumption in the treatment of chronic and other diseases, drawing examples from different settings such as China where Complementary and Alternative Medicine use is gaining popularity, and highlighting their possible health implications for Ghanaian patients with chronic conditions like diabetes mellitus.

2.8 Theme (6) - Cultural Health Beliefs: Cultural Influences on Health

Seeking Behaviour of patients with chronic conditions with examples from China and other parts

There are several factors which may affect patients' health or illness situations as well as their treatment choices, including social, medical, cultural health beliefs and economic status (Chew, Tan and Ooi, 2011). Specific factors such as age, geographical location of the person, gender as well as the educational and racial background of the person affected with the disease condition may also determine the choice of treatment for a disease condition (Bair et al; 2002). For instance the choice of Complementary and Alternative Medicine (CAM) or Traditional Medicine (TM) and the Conventional Therapy (Western Medicine) may be determined significantly by cultural factors and other related factors (Roy, Torrez and Dale, 2004). Now let us look at some specific research studies on cultural influences on health seeking behaviour of patients with chronic diseases.

In a cross-sectional study, Chew, Tan and Ooi (2011), used a convenience sampling technique to recruit 50 Malaysian Chinese participants from the general public and 50 Chinese medical students to look at the influence of Chinese cultural health beliefs on their

health seeking behaviours. Data was collected from the participants using questionnaire in English Language or Chinese. Data was analysed using Statistical Package for Social Sciences version 12.0.1.

From the study, it was identified that about 78% of the participants from the general public held the belief that “too much heat” or “too much cold” in the body of a person can lead to a disease condition (Chew, Tan and Ooi, 2011, p. 253). Similarly, from the perspectives of the medical students, they held common belief that “abdominal pain” is as a result of “too much wind” in the abdomen of an individual sufferer, and that eating certain foods such as ginger or garlic can remove the air from the intestines (Chew, Tan and Ooi, 2011, p. 253). Almost all the members in the two groups share common belief that it is important to use both traditional Chinese medicine and modern medicine to treat certain diseases (Chew, Tan and Ooi, 2011). They also believe that fever is as a result of “too much heat” in a person’s body. Again, “too much wind” collected at the joint of a person can lead to joint pains, and that eating certain foods, such as watermelon may facilitate “too much wind” to move into the person’s body (Chew, Tan and Ooi, 2011). Several of these beliefs were identified by these researchers. These Chinese perceptions regarding how diseases are developed and treated are based on the traditional concept of “yin and yang” (Chew, Chan and Ooi, 2011, p. 254), which represent two opposite forces such as “positive and negative”, “light and dark”, and “hot and cold as part of the person”. An imbalance between the “yin and yang” causes a disease and to some extent determines individuals’ choice of treatment (Ariff and Beng, 2006; Chew, Tan and Ooi, 2011). For instance, there is belief that when the “yang” part of the person becomes powerful, clinical manifestations like “fever” as well as “heat rush” may occur. On the other hand, when the “yin” is perceived to be powerful, manifestations such as “cold” or cough and other respiratory symptoms occur (Tsuei, 1992). These may define people’s attitude towards health and illness in China, and may determine the type of

interventions individuals will seek for most conditions in the Chinese traditional setting.

These perceptions regarding diseases are unique to Chinese people, but the essence is that, in every society, distinctive beliefs and perceptions are also held by people which determine their decisions and choices they make regarding treatment of disease conditions.

The findings from Chew, Tan and Ooi, (2011) are significant as nurses and other healthcare professionals need to possess knowledge on these cultural beliefs and practices so that they can offer cultural sensitive care to their patients based on patients' decisions and choices.

Despite these positive attributes the sample size for the study was small and may not represent the entire population of study setting. Therefore generalization may not be possible in Chew, Tan and Ooi's study of 2011.

Similarly, the works of Kottak (2008) on cultural anthropology described cultural health beliefs and categorized disease causal theory mainly under three (3) levels. These are "naturalistic, personalistic and emotionalistic" (cited in Vaughn, Jacquez and Baker, 2009, p. 65). The "naturalistic" disease model explains that diseases occur as a result of disequilibrium in the body due to a particular pathogen or due to a known medical cause. For instance as a result of invasion of the body by a virus or a bacteria. The pathogens are removed in order for the affected person to be free from the disease (Kottak, 2008). The personalistic disease framework attaches causes of diseases to supernatural beings, witches, human beings, sorcerers, non humans and similar forces, whereas emotionalistic illness model explains that diseases are initiated by strong emotions that affect people, such as in intense anger, grief and fright, in which individuals become emotionally imbalanced.

The work of Kottak, (2008) presents a general framework to explain disease causation as perceived by individuals as well as groups which centre on “naturalistic, personalistic and emotionalistic” perspectives. On the other hand the study by Chew, Tan and Ooi, (2011) looked at the extent to which cultural health beliefs influence the perceptions of Malaysian Chinese and Chinese medical students on health seeking behaviours. For instance, their perception that abdominal pain results from “too much air” in the abdomen and which may be treated by consuming “garlic or ginger to remove the air from the intestines”, which seem to fit into “naturalistic” model of disease causation by Kottak, (2008).

Related studies on cultural influences on health and illness perceptions have been undertaken by other researchers; however the ideas in their findings hang around the same ideas like that of Chew, Tan and Ooi (2011) and Kottak (2008). For instance, Helman’s work of 2001 on health, culture and illness also found that people attribute reasons for illness to many factors. Helman (2001) categorized these factors into four (4) main domains which can cause disease conditions in individuals. First, the study grouped these factors under one umbrella as “factors within the individual themselves” (Helman, 2001). Example is focused on people with negative emotional states such as depression, fear, frustration as well as shock to mention a few. These situations are likely to cause imbalances to the body of the affected person including sleeping disturbances. Second are the factors within the natural setting or the environment are also believed to cause disease conditions to individuals (Helman, 2001). The factors such as pollution can cause diseases to individual through contamination and spread of infection by micro-organisms. The third factor by Helman is categorized as social factors such as “interpersonal stress, medical facilities and actions of other people” (Helman, 2001). The last category by Helman (2001), focuses on perceived supernatural factors such as “God, destiny of people, and indigenous beliefs such as witchcraft and voodoo” (cited in

Vaughn, Jacquez and Baker, 2009, p. 65). In the researcher's experience as a nurse, he observed that some patients who were under his care, requested discharge from the hospital in order to undergo spiritual treatments because it was perceived that their condition was caused by a spiritual powers. This is in support of what (Helman, 2001) considered under spiritual causation of disease conditions.

The study findings by (Helman, 2001) are very imperative as they indicate perceived illnesses trajectory which may be able to explain the origin of several disease conditions as perceived by people including patients themselves. Helman's four domains of illness attribution serve as a model for explaining lay perceptions regarding illness and health.

It is interesting to note that there are similarities of illness attribution as found by Helman (2001) and Kottak (2008). While Kottak (2008) attributed disease causation under three major categorization as "naturalistic, personalistic and emotionalistic", Helman (2001) on the other hand found illness attribution centred around four (4) main themes, namely, "factors within the individual themselves", "within the natural environmental" like germs and environmental pollution, "social factors including poor interpersonal relationships, medical factor and actions of other people" and factors associated with supernatural factors such as "God, destiny, and witchcraft activities" (Helman, 2001).

The themes as identified by Helman (2001) match with that of Kottak (2008). For instance it appears that naturalistic factors associated with disease causation in Kottak (2008) model is similar to what Helman (2001) noted as illness attribution factor within the natural environmental where germs and environmental pollution dominate. Further, personalistic disease framework as proposed by Kottak (2008) attributes disease causation to supernatural beings, such as witches, human beings, sorcerers, non humans and similar forces. This is similar to Helman (2001) grouping of illness attribution where supernatural factors such as "God, destiny, and witchcraft activities" (Helman, 2001) are perceived to cause lot of

displeasure and diseases to people. Helman (2001) found that “factors within the individual themselves such as bad habits or negative emotional status” as well as “interpersonal stress, medical factors as well as actions of other people can cause disease in other people. This seems similar to what Kottak (2008) discussed under the causes of emotionalistic illness, that diseases are initiated by strong emotions that affect people. When experiencing an emotional state, such as in intense anger, grief and fright, individuals become emotionally imbalanced. Both Kottak (2008) and Helman (2001) found that these are all frameworks that underpin illness attribution and are important for disease categorization based on the patient’s perceived causes.

As compared to the study findings by Chew, Tan and Ooi (2011), Helman (2001) presented a general illness attributions model to explain how illnesses occur from different perspectives. However the finding by Chew, Tan and Ooi (2011) considered the social phenomenon on how disease development is perceived among Malaysian Chinese public and medical students in China. For instance the concept of disease development in traditional Chinese setting was based on whether there is “too much heat or cold in the body”. These perceptions from Chew, Tan and Ooi, (2011) seem to fit into Helman’s (2001) model at two levels where disease is perceived to be caused due to “factors within the individuals themselves or due to factors with the natural environment” (Helman, 2001).

There are connections in the findings of the three major studies reviewed by Helman (2001), Kottak (2008) and Chew, Tan and Ooi (2011). The lessons drawn from these literature reviews point to one major factor, “how culture determines illness attributions and how individuals perceive their diseases”. These factors may inform patients the type of treatments they usually opt for. The choice of any of these models explains how diseases occur and it is strongly tied to the culture of the people. As we have noted above in all the studies, it is the

culture which defines and serve as a drive for people to make choices in decisions concerning their health including treatment and other health procedures.

In the researcher's opinion as a nurse he observed that in a culture and society where spirituality and religion is very pervasive and envelops all facets of activities of the people in Ghana, a personalistic framework may be employed in many situations to explain the health seeking behaviour of the people. A naturalistic model is likely to be used in a situation where the people deny the appropriateness of supernatural powers to cause diseases and afflictions to people. However, it appears to the researcher that the emotionalistic model may be applicable in many cultures as the effects of emotions are physiologically defined and is likely to show similar manifestations in people who experience anger, fright, grief and anxiety. However, the researcher believes that treatment for emotionally initiated conditions may still be defined and explained in terms of the affected person's perceived beliefs about the causes of the emotional conditions, and thereby identify either naturalistic or personalistic mode of treatment as an intervention.

Research has shown (Furham, Akande and Baguma, 1999; O'Neil, 2006) that people in the non western world are usually associated with the personalistic and emotionalistic disease theories, and that individuals who share such beliefs have strong faith and belief in their traditional medical practices associated with their cultural systems. Such health beliefs are different from the medical practices associated with the western cultures which are associated with the "naturalistic" perspective of illness causation (Furham, Akande and Baguma, 1999; O'Neil, 2006).

The findings of the three studies, Helman (2001), Kottak (2008) and Chew, Tan and Ooi (2011) have implication for Ghanaian diabetic patients as individuals' perceptions as well as

their cultural orientation regarding health and illness may show their health seeking options. In the researcher's opinion as a nurse who interacts with patients with diverse backgrounds in Ghana, is highly convinced that in this study the perceptions and beliefs of type 2 diabetics, as well as their cultural orientation in general regarding health and illness may determine to a large extent the choices they will make in terms of treatment of their diabetes. One of my research questions in the present study is on perceived beliefs about the causes of diabetes among type 2 diabetics in Ghana. It is equally important to mention that it is important for healthcare providers to be aware of these cultural practices and beliefs that are held by their patients or clients, as these beliefs and practices affect the decisions taken by these patients and clients.

In Africa and particularly, Ghana there may be other and similar health and illness attributable factors taking into consideration the rich cultural held beliefs of these people which are centred on religion and spirituality and strong social interconnectedness among many factors. Ghana is a multi-ethnic society with many religions including Christianity which many individuals belong to. The researcher must mention that religion and spirituality play a key role in the life of Ghanaian people even in political circles and similar areas.

The literature review in this section has looked at the importance of cultural beliefs held by patients and their effects on perceptions and treatment choices, with particular reference to social meanings specifically attaching to disease conditions and situations. These social meanings and beliefs determine people's attitudes to health and illness. These beliefs inform healthcare providers such as nurses what they need to know about their patients in order to offer them appropriate care.

The following section centres on the need to bring together the biomedicine and the traditional medicine, with particular reference to its relevance and practice implications for Ghana.

2.9 Theme (7) - Possibility of Integration Between Biomedicine and Traditional Medicine

Efforts to ensure integration between the use of biomedicine and traditional medicine have been confronted with serious challenges for many countries for decades (WHO, 2002). In order to address the issue, the World Health Organization's (WHO) strategy to promote the development of traditional medicine pointed out the need by governments to support the development of Traditional, Complementary and Alternative Medicine (TCAM), and also to ensure the smooth integration of the TCAM into the healthcare systems of countries (WHO, 2002).

In a focus group study in Hong Kong, Chung et al., (2012) explored possibilities of integration between biomedicine and traditional Chinese medicine by interviewing 50 biomedical practitioners and 50 traditional Chinese medicine practitioners. Following qualitative data collection, the data was analysed using "structuration model of collaboration" a theoretical framework which is used to understand or appreciate interprofessional collaboration (Chung et al., 2012). Findings from this study showed the following; the need for interprofessional collaboration to promote integration between practice of biomedicine and the traditional Chinese medicine, practitioners from each of the disciplines agreed on common grounds to provide client care as well as the need to promote and develop "share care" policies in order to ensure smooth integration (Chung et al., 2012), the need to encourage exchange of information between practitioners of biomedicine and traditional Chinese medicine practitioners. In addition there was the need to encourage interprofessional

networking and to promote leadership skills among practitioners to move integration forward (Chung et al., 2012). However, the findings showed that practitioners from each of the disciplines were split on ideas needed to ensure promoting reliance and trust, and learning from each other to support and foster creativity and innovation (Chung et al., 2012). They were also not in agreement as to how to improve governmental support to prop up integration of biomedicine and traditional medicine.

Similar integration problems between biomedical medicine and traditional medicine have been reported by Grace et al., (2008). In their study it was pointed out that the difference in educational level between biomedical doctors and traditional, complementary and alternative medicine practitioners may be the main reason for difficulty in bringing the two disciplines together (Grace et al., 2008). It has been suggested that in order for integration to be successful, there is the need to foster common interprofessional training and education between the biomedical practitioners and the traditional, complementary and alternative medical practitioners. This is likely to promote team work and enhance best practices of practitioners at all levels and to agree on common referral policies (Grace et al., 2008).

Though the two studies Grace et al., (2008) and Chung et al., (2012) were set off to investigate different issues associated with integration between biomedical medicine and traditional medicine, the two studies are in tandem on the need to promote team work.

Whereas Grace et al., (2008) were interested in interprofessional training to ensure team work and to promote best practices among the biomedical practitioners as well as traditional practitioners, Chung et al., (2012) advocated for “shared care” which is a form of team work needed for patient care by the biomedical practitioners and traditional practitioners.

According to Chung et al., (2012), “shared care” may be successful when information flow is encouraged between the two systems, biomedical and traditional medicine. The differences

between the findings in the two studies show that, Grace et al., (2008) noted that a problem associated with integration was based on the differences between educational levels of the practitioners of both biomedical and traditional practices, whiles Chung et al., (2012) found that practitioners from each of disciplines were not ready to learn from each other and that constituted a major problem for integration between biomedical and traditional medicine. However, it is only Chung et al., (2012) who reported that there was no agreement between the two disciplines to improve governmental support to bring the biomedical and traditional medicine together.

In a similar study, it was noted that medical doctors acknowledged that it was due to lack of knowledge on their part which resulted in shunning or disapproval of the use of traditional, complementary and alternative medicine (Mior et al., 2010). Additionally, referral of patients to the traditional, complementary and alternative medical practitioners may not be possible by biomedical practitioners due to the fact that biomedical practitioners may not employ the knowledge in traditional, complementary and alternative medicine in their practice settings during decision making process. These are barriers to proper integration between biomedical and traditional practices, similar to what Grace et al., (2008) reported. Grace et al., (2008) noted that the problem of integration stemmed from differences in the educational levels of both practitioners. This is because the concept of biomedicine is different from that of traditional medicine in terms of methods and procedures used in each discipline (Twumasi, 2005). Chung et al., (2012) identified that practitioners from each of disciplines were not ready to learn from each other and that represented a key problem for integration between biomedical and traditional medicine. Probably, their unwillingness to learn from each other might have resulted from the differences in the educational levels of both biomedical and traditional practitioners (Grace et al., (2008).

The findings from the three studies, Grace et al., (2008), Chung et al., (2012) and Mior et al., (2010) clearly show that there are two major factors, facilitative and barriers to integration directing at the possibilities of unionization between biomedical and traditional health practitioners. The connection here is that effective facilitative measures are likely to ensure proper and lasting integration between the two disciplines. Conversely they are likely to discourage any meaningful integration between the biomedical and traditional practitioners.

The findings from the studies reviewed have implications for Ghana healthcare system. In the opinion of the researcher as a nurse, who has worked in the public sector in Ghana for more than 17 years, has observed that Ghanaian healthcare system has similar controversial issue and problems confronting it with regards to attempts to bring integration between traditional medicine and biomedical medicine. As a nurse, the researcher has observed that there is no mutual respect between traditional medical practitioners and biomedical practitioners in Ghana. The need for them to work together has just been spelt out on paper. Practically, this has not been possible as practitioners from each of the disciplines share different perspectives in their approach to healthcare. It may be necessary for the government to develop policy initiatives to focus on measures which deal with these controversial issues serving as impediments to smooth integration of the two systems in Ghana. As a nurse, the researcher has observed situations in which patients who have applied herbal preparations on their wounds/abscesses and have reported at the hospital for further management were approached by nurses and doctors alike to wash the herbal preparations from their wounds before biomedical treatments were initiated. These and several other negative approaches towards patients and traditional practitioners actually do not promote any meaningful integration. For instance in a qualitative study, Korsah (2011) found that differences in beliefs between nurses

and patients regarding treatment options, resulted in negative and poor interactions between nurses and their patients as well as clients. These situations occurred when patients on admission at the hospital requested for discharge in order to get chance to commence traditional medical treatment. When nurses and doctors failed to discharge the patients, it resulted in poor interactions between them and traded in insults. It appears to the researcher that in modern Ghana today, there is no meaningful cooperation between biomedical practitioners and traditional practitioners.

It appears that some few countries have integrated the traditional medicine practice into their national health delivery system. Among them are the People's Republic of China, Republic of Korea and Vietnam to mention a few (Muweh Nyiegwen, 2011), and that in the sub-Saharan Africa it looks like no particular country has actually instituted rigorous integration policy to promote the dual use of traditional medicine and biomedical medicine under their national healthcare delivery system (Muweh Nyiegwen, 2011). The researcher has noted that as a country, if we really need to support our patients to be able to cope positively with their chronic conditions such as diabetes and hypertension, then the integrative system or model of care is paramount, as traditional aspect of treatment. This acknowledges some culture related issues of illness and health which the biomedical system may not address. For instance traditional mode of treatment of certain disease conditions alleged to have come about as a result of supernatural powers.

This section of the literature review critically considers the need for integration between biomedicine and traditional medicine pointing at facilitative factors for possible integration and obstacles to integration and cooperation. Findings of studies reviewed under the section suggest the need for team work which may result from interprofessional training which may

be likely to bridge the differences in the educational levels of biomedical and traditional healthcare providers.

The following section examines three major coping theories, taking into consideration their strengths and limitations to agree on the most appropriate one for the current thesis.

2.10 Theme (8) - The Search for Theoretical Framework for this Research

Three theories of coping with disease conditions as well as the philosophical concepts that underpin them are considered and described below. These are (a) Conservation of Resource Theory (COR) for Stress Management, (b) Repression-Sensitizing Coping Model, and (c) Transactional Model for Stress Management. Each of them is critically examined in terms of merits and weaknesses to determine the appropriateness of one of them for this current research.

First, let us look at the Conservation of Resource Theory (COR) for Stress Management (Hobfoll, 2010).

2.10 a. Conservation of Resource Theory (COR) for Stress Management

The Conservation of Resource Model (Hobfoll, 2010) explains that availability of resources is essential for people to deal with stressful situations. According to this model individuals endeavour or attempt to “retain, protect and build resources” (Hobfoll, 1989, p. 516) in order to avoid stress (Hobfoll, 2011). However, problems associated with this are the potential or actual loss of these important or valued and cherished resources to the individual, which may create anxiety or stress for them (Hobfoll, 2010). The theory categorizes and defines resources as “objects, conditions, personal characteristics and energies” (Hobfoll, 2011, p. 117) which are vital for continued existence of individuals and that these resources can also

be employed to accomplish or attain other resources (Hobfoll, 2011). Examples of resources grouped under objects are shelter, food and clothing which can be seen physically or classified as tangible assets. Condition resources include good health, status as well as social support among others. Condition resources have capacity to facilitate the accomplishment of other resources (Hobfoll, 2011). Personal characteristics grouped as resources may include skills and traits such as occupational skills and self-esteem respectively (Hobfoll, 2011). Examples of energy resources are money, knowledge and time. Energy resources have the ability to be substituted or exchanged for other resources.

The Conservation of Resource (COR) model was established on three premises that resources are essential and needed for adaptation as well as a change to occur. Additionally, in order to adapt, the use of resources must be optimized. Thirdly, people are endangered by probable or real loss and failure of resources (Hobfoll, 2010). It should be noted that resources are essential for individuals, communities, groups in addition to organizations to adapt. It is also equally important to note that resources are needed in order to cope with stressful situations and conditions. Research shows that some resources may be regarded as important as others whereas at some point in time certain resources may also be more important than others during their implementation and operation stage (Aspinwall, 2005; Hobfoll et al., 2003). It is also noted that people with limited resources are more prone to loss of resources due to the fact that they may not have the capacity to manage resources well, and less able of achieving additional resources. Conversely, people with greater resources may not be liable to loss of resources and may have capacity to gain more resources, and at the same time may have a better capacity to manage risks more than individuals with limited resources. It means therefore that resources may be put in or invested to accrue more resources and to be able to compensate the likelihood or real loss of resources (Hobfoll, 2010).

The Conservation of Resource Theory has been applied in many situations including how individuals managed natural disasters and how other people coped with work related and other stress. In an already resource-challenged environment, natural disaster may create additional stress and also result in further reduction of resources (Zamani et al., 2006).

Research studies also indicate that individuals who experience stress are more prone to ensuing or subsequent stressors (Brewin, Andrews and Valentine, 2000; Ozer, Best, Lipsey and Weiss, 2003). However, in a number of communities, despite recurring and frequent stress due to natural calamities; they are able to cope as a result of practical and positive interventions they have put in place to deal with such unforeseen disasters (Zamani et al., 2006).

As already pointed out from the COR model, stress occurs possibly in three circumstances; as individuals are exposed to loss of resources, in situations when resources are endangered or dying out, and when individuals invest in resource development without subsequent achievements (Hobfoll, 2011).

From the discussions so far, the COR theory can be generally applied in many situations including health. A loss in resources may be a source of stress, and that the limited resource or its depletion may render the person incapable of dealing with a further problem or stress (Hobfoll, 2010). This idea may explain why in ill health situation, such as diabetes mellitus, individuals may be vulnerable due to the fact that, they have limited resources, a circumstance in which adaptation and coping are considered challenging. In good health, individuals may be able to cope and adapt well because they possess “optimum” resource, the health. By its nature health is considered as a resource, “a type of capital” “an asset” which is

essential for individuals to live and to be able to perform (Williamson and Carr, 2009). In addition, health as a resource and capital, people may invest in it to reap positive health outcomes (Kuh, Power and Bartley, 2004; Williamson and Carr, 2009). In good health, people are actively able to “take part in society because they acquire biopsychosocial resources” (Breslow, 2004), which provides the foundation for people to invest in health, in order to acquire other resources for the benefit of the individual and the society at large (Williamson and Carr, 2009). On the other hand when people have malfunction of health, there may be the need to identify interventions in order to revive the health of the individual. In the researcher’s experience as a nurse in Ghana, has observed that sick individuals are provided with the needed support from varied sources. These are social support, emotional support, financial support, counselling, medical as well as other hospital services so that they can live productively with the condition.

As much as Hobfoll’s (2010) COR model is essential in explaining the usefulness of resources for managing and dealing with stress experienced by individuals, it has deficits. In the first instance, the model is too general and seems to show that a resource may be anything. It may be difficult to identify and evaluate or assess all resources. Again, according to the model, resources are essential for adaptation, but the question is, there may be some individuals or group of people with required resources but they are not able to adapt and cope well. For instance, no matter the type of counselling and support services some patients may be offered, they may not be able to cope with their stress. In addition, it may not always be true that resources promote or enhance adaption. There are individuals and communities with adequate resources but are not able to adapt and manage well. It is also subjective to say that people are endangered by probable or real loss of resources. This is because; we have individual differences and capabilities in identifying what a stress is and dealing with it, as

what may be constituted as a stress by one person may not be a stress for the other person.

For these drawbacks, the researcher did not choose this model for the current study.

The subsequent section takes accounts of the second model, repression-sensitization methods of coping with other and related coping approaches such as blunting verses monitoring strategies, as well as vigilance and cognitive avoidance.

2.10 b. Repression-Sensitization Coping Methods

Repression-Sensitization coping approach is classified as a trait oriented coping theory. Trait-oriented coping models generally explain individual's cognitive reaction to stress or anxiety by focusing on two main constructs, namely "vigilance and cognitive avoidance" information (Krohne and Egloff, 2005). Vigilance is aimed at directing attention towards the challenging or stressful situation or an encounter in order to cope with it (Krohne and Egloff, 2005). On the other hand, in cognitive avoidance approach, individuals tend to turn away their minds or attention from stress related cues and information ((Krohne and Egloff, 2005).

According to Repression-Sensitizing Coping Theory by Krohne and Hock, (2008, 2011), individual who experiences stress copes with the stress at one end of the poles at a particular point in time. Individuals who employ repression as a coping strategy at one of the pole tend to avert the stressful situation by denying its impact. Avoidance coping strategy is usually used by such individuals in order to stay away from the real as well as potential negative and harmful consequences of the stressful stimulus. In other words such people (repressors) attempt to limit the existence of stress and fail to demonstrate the feelings of suffering and distress associated with the stress (Krohne and Hock, 2008, 2011). On the other hand people who are located at the other end of the pole, called sensitizers, become exceptionally worried

due to the stressful experiences, ponder over the stressful situation and attempt to look for information on the stressful experience including its management.

Similar to the concept of repression-sensitization mode for coping, Miller et al., (2001) also developed “blunting verses monitoring” as a coping strategy used by people who face stressful experiences. In “blunting”, individuals who experience uncontrollable stressful situations or challenges cope by the use of cognitive avoidance style such as “denial”, “reinterpretation” as well as “distraction” (Miller et al., (2001). Examples of situations or conditions or events grouped under “uncontrollable stressful cues” which individuals may cognitively react to is imminent surgery. If the person experiencing stress has control over the stressful event, “monitoring” as a coping strategy is usually applied. Information seeking regarding the stressor is an example of monitoring coping strategy and seems to be effective in adaptation and coping in general (Miller et al., (2001). It has been reported that initially these coping methods are coupled with increased level of anxiety responses and effects, eventually helps the individual who experiences the stress to manage the stressors efficiently to limit the effects of stressful event.

The other framework is the model of coping modes (MCM) which is built on the concepts of blunting-monitoring as well as repression-sensitization coping strategies. The MCM depends principally on vigilance and cognitive avoidance modes and underlined by the concept of cognitive-motivation. The MCM specifies that the stressful situation experienced by a person has two main characteristics including “aversive stimulation and level of ambiguity” (Krohne and Egloff, 2005). According to this model, there is “emotional arousal” associated with “aversive stimulation” whereas “uncertainty” is connected with “ambiguity” (Krohne and Hock, 2008). In arousal state, the individual may have the propensity to cognitively avoid

additional development of signals associated with the stressful situation. The framework points out that the “uncertainty” may trigger or set off vigilance mode of coping (Krohne and Hock, 2008). The model suggests that individual’s choice of avoidant or vigilant coping style may be dependent on the person’s level of emotional stimulation and that people who are susceptible to or find themselves under a condition of “stress-induced emotional arousal” are likely to use cognitive avoidance as a coping method (Krohne and Egloff, 2005). The use of the avoidant coping method in this way may safeguard the person from further stimulation associated with the stressful event, known as “arousal-motivated coping behaviour” (Krohne and Egloff, 2005). Conversely, persons with “uncertainty” associated with stressful events may usually employ vigilant coping style in dealing with their challenges. Additionally, the use of vigilant coping method may be intended to avoid the tendency of development of unforeseen negative experiences, also represented as “uncertainty-motivate coping behaviour” (Krohne and Egloff, 2005). It should also be noted that the use of vigilance and cognitive avoidance coping methods do not depend on each other which means that, the use of vigilance or cognitive avoidance coping method does not prohibit or prevent the other.

The MCM therefore identifies four coping modes dependent and based on coping style employed by an individual, either vigilance or cognitive avoidance (Krohne and Egloff, 2005).

1. Individuals who realize higher level of scores or achievements on vigilance and low level of scores on cognitive avoidance are classified as “sensitizers”. Such individuals aim at limiting uncertainty as they tend to concentrate on significant information associated with stress.

2. Persons at the other end of the pole are the “repressers” who try to lessen emotional stimulation or the noxious reactions of stressful situations by evading negative or aversive information.
3. Individuals with low scores on both vigilance and cognitive avoidance modes are termed “non defensives” who may easily or flexibly adjust to challenges associated with a stressful and taxing experience. Such individuals choose to act instrumentally under many circumstances by evaluating, planning and identifying various ways and options to deal with a stressful situation in order to accomplish their goals instead of habitually using avoidant or vigilant coping method.
4. There are people who show high scores at each end of the pole and are classified as “high anxious”. Such individuals employ both vigilant and avoidant coping styles which help them to trim down biased or one-sided uncertainty and emotional stimulation provoked by the noxious experience. However, it is noted that the two may not be well-matched in the majority of circumstances as high anxious individuals are believed to demonstrate fluctuating and erratic modes of action, and it is therefore regarded as having limited resource and practical capacity to deal with stressful situations in most instances (Krohne and Egloff, 2005). Realistically, under serious stressful situation, it may be tasking for the affected person to swing between the two ends of the coping pole. On this note, the researcher considered the model incapable of dealing meaningfully with stress encountered by individuals. The researcher has therefore not employed it as a model for this current thesis.

The three key models we have studied on coping above, namely, “Repressive-Sensitizing” Model (Krohne and Hock, 2008, 2011), “blunting verses monitoring” (Miller et al., 2001) and “vigilance verses cognitive avoidance” (Krohne and Egloff, 2005) have similarities and

differences. Each end of the respective poles in each case represents people or individuals who exhibit unique features regarding coping with stressful events. Repressors who usually use avoidant coping styles as proposed by (Krohne and Hock, 2008, 2011), is similar to blunting coping strategy as propounded by Miller and colleagues in 2001. In the same vein, with regards to the opposites of the positive strategies as noted by (Krohne and Hock, 2008, 2011) and (Miller et al., 2001) respectively, individuals who cope by sensitizing, may be eager to look for information and other resources to deal with their problems (Krohne and Hock, 2008, 2011) and this is similar to what Miller et al., (2001) identified as monitoring at the other end of his continuum, which describes individuals who may seek for information to deal with the situation and may not utilize denial or avoidance as a coping method (Miller et al., 2001). In the same way, the “vigilance and cognitive avoidance” model of coping (Krohne and Egloff, 2005) demonstrates clear and same similarities and differences as we have seen above between (Krohne and Hock, 2008, 2011) and Miller et al., (2001), where vigilant coping is intended and likely to be used a situation to avoid negative feelings and experiences, as avoidance strategies are likely to be used as a negative strategy , for instance evading an information which is intended to help a patient in managing the condition.

In a broad sense, the three models, repression-sensitizing coping, blunting and monitoring strategies, and vigilance and cognitive avoidance by Krohne and Hock, (2008, 2011), Miller et al, 2001 and Krohne and Egloff (2005) respectively, are all pointing to the three major categorizations of coping methods, positive and negative coping (Chylova and Natovova, 2012) in which case the positive coping tend to assist people to reduce stress whereas negative coping is employed to deal with issues on temporal basis without finding any meaningful answers to the problem, problem-centred coping and emotional-oriented coping methods (Folkman and Moskonitz, 2004) in which problem-oriented coping tends to reduce

anxiety and emotional-centred coping reduces effects of stress but does not find permanent solution to the problem at hand, as well as active and passive coping (Carrico et al., 2005; Gerin, 2011) as we have already seen in our previous discussions. For instance, in the examples above, one can observe that repressive coping attitude or style (Krohne and Hock, 2008, 2011) may equate, for instance negative coping (Chylova and Natovova, 2012) whereas sensitizing coping strategy (Krohne and Hock, 2008, 2011) may represent positive coping strategy (Chylova and Natovova, 2012).

The synopsis of this section is that, each of the three models, repression-sensitizing coping, blunting and monitoring strategies, and vigilance and cognitive avoidance by Krohne and Hock, (2008, 2011), Miller et al, 2001 and Krohne and Egloff (2005) correspondingly have opposite poles representing positive and negative coping, problem-centred and emotional-oriented coping methods as well as active and passive coping. They all mean the same but presented in different ways.

The third coping framework is the transactional model for stress management presented in the next section, showing its worth with particular reference to the needs recognized among patients newly diagnosed with type 2 diabetes at a hospital in Ghana.

2.10 c. Transactional Model for Stress Management (TMSM)

A leading theoretical framework for coping with stressful situations and disease conditions was developed by Richard Lazarus and Susan Folkman in 1984 known as Transactional Model for Stress Management (TMSM). The model explains that anxiety or stress is experienced by individuals in undesirable situations when the stress exceeds existing and accessible resources to deal with it. The model demonstrates an interaction between people

and their outer environment, and is reflected in the name of the framework Transactional Model, showing a kind of transaction between persons and their environment. This means that the model is capable of assessing stressors in the environment as well identifying distinctive resources which are at the person's disposal needed for dealing with the predicament or the problem. Therefore the model is capable of breaking the communication between stressor and strain and makes the person less endangered by the problem (Lazarus and Folkman, 1984). The person then becomes secure and possesses well-organized or resourceful coping strategies proficient in dealing with the crisis at hand. According to Lazarus and Folkman (1984) TMSM has two main components, namely, primary and secondary assessments. The primary assessment component of the model looks at the problem that the person is confronted with and finds out the extent to which the problem or the issue affects the individual. In other words the primary assessment defines the nature of the problem, in what ways it affects the person and to what extent the problem affects the person's daily activities. The secondary assessment aspect of the model finds out what the person can do in order to overcome the problem at hand. The resources needed by the person to defeat the problem are in various forms defined under physical, psychological, economic, spiritual and social resources (Lazarus and Folkman, 1984). Each of these categories may be used by the person depending on the problem being confronted with. For instance, one may use economic resources such as the amount of money available to him to secure medication under the 'cash and carry' system of healthcare financing. For instance in Ghana, under the "cash and carry" system of healthcare financing, the patient has to do initial payment for the health services needed before the patient is attended to. Even in situations considered as emergencies, patients are supposed to pay at any point of service provision or delivery.

The concept of coping is associated with stress (Lazarus and Folkman, 1984). Coping takes into consideration efforts made by individuals so that problems or challenges confronting them are managed in order to adjust or adapt well.

There are two main methods of coping which have been identified including problem-oriented and emotion-centred coping strategies (Lazarus and Folkman, 1984). Coping is a complex and individualized phenomenon because people cope in different ways and the use of either problem-focused or emotion-based coping is supposed to produce a particular result. Some examples of problem-focused coping mechanisms include acceptance, in which the person comes to terms with the problem and agrees that the problem is part of him and so efforts are channelled into finding solution to the problem, emotional support: receiving support such as advice or counselling from other people, and planning: steps needed to approach the challenge (Lazarus and Folkman, 1984). On the other hand, some examples of emotion-oriented coping methods are avoidance: dodging or averting the realities of the problem instead of finding answers to the problem at hand, and distancing: detaching from the difficulty or predicament (Lazarus and Folkman, 1984).

Critical evaluations of coping strategies have revealed that a problem-oriented approach to coping is widely employed when the problem is perceived to be modifiable or changeable in which coping is focussed at recovering the setback or the hitch leading to the suffering.

Conversely emotion-centred coping is usually utilized when the problem is observed to be unalterable, so that coping efforts are mobilized to normalize stressful feelings of the affected person.

There are similarities and differences in all the three studies that have been reviewed under the models proposed for this thesis. All of the three studies, Conservation of Resources Theory (Hobfoll, 2010, 2011), Repression-Sensitization Model (Krohne and Hock, 2008,

2011), and Transactional Model for Stress Management (Lazarus and Folkman, 1984) noted stress as a central factor in their studies which serves as an impetus for individuals to identify coping strategies to deal with a problem at hand. In addition all the three studies make mention of stressors in the environment which are the sources of patients or individuals' strain or anxiety. Both Lazarus and Folkman, (1984) and Hobfoll, (2010, 2011) found resources in the environment as essential to deal with the stressors, in that when individuals are confronted with difficulties, diseases, challenges and so forth, they can manage at the personal level or at other levels. However, Krohne and Hock (2008, 2011) identified stressors in the environment, how people perceive it at the different levels or poles (for example, repression verses sensitization), but did not consider how resources may be needed to manage the stress. Hobfoll (2010, 2011) did not assess the nature of stressor but Lazarus and Folkman (1984) assessed the stressor to find out the extent to which it affects the person in order to look for an appropriate intervention. The extent to which the stressor affects the person was considered on the basis of how it affects the person's daily life. The process by which this was known is called the primary appraisal (Lazarus and Folkman, 1984).

Though, both Lazarus and Folkman (1984) and Hobfol (2010, 2011) identified resources and categorized them, different classifications were given by each of them, but all noted the need for resources to deal with problems that people face. Whereas Hobfoll (2010, 2011) mentioned resources as objects, conditions, personal characteristics and energies" which are vital for continued existence of individuals, Lazarus and Folkman (1984) looked at resources as physical, physiological, economic, spiritual as well as social. However, it is only Lazarus and Folkman, (1984) who considered specific or certain resources as appropriate to deal with stress or problems that people face. Such evaluation of resources to find out their ability to deal with the problem was termed, secondary appraisal (Lazarus and Folkman, 1984).

In addition, a close look at the definition and practical use of problem-centred coping strategy by Lazarus and Folkman (1984), it equates sensitizing and monitoring aspects of coping by Krohne and Hocks (2011) and Miller et al., (2001) respectively which take care of problems considered to be controllable, whilst emotional oriented coping represents repression and cognitive avoidance methods of coping, when the problem at hand is not controllable.

From our discussions, the ultimate effect of the coping method being utilized will be on the person who is confronted with the problem. The anticipated outcomes as a result of coping may define the entirety or the totality of the person who faces the problem. This means that there is a connection between coping and general state of the person confronted with the challenge. For example, a study done by Denollet et al., (2008) noted that a repressive coping approach is associated with poor physical health and that individuals who employ repression as a coping strategy stand a high chance to develop “hypertension as well as myocardial infarction” and other cardio-vascular conditions. The reason for the development of such conditions is that, there may be a “hyper responsiveness of the sympathetic nervous system to the stressful event”, which in turn leads to these anomalies in the heart. In addition, Myers (2010) has acknowledged that “repressives but not sensitizers” are associated with deprived and poor physical wellbeing, secondary to heart and its related problems as a result of “increased autonomic activity which under adverse circumstances can lead in the long term to cardiovascular diseases” (Paul et al., 2012).

In summary, these three studies, Denollet et al., (2008), Myers (2010) as well as Paul et al., (2012) point to one common outcome that poor physical health is associated with repressives as a result of heart conditions and its related challenges. Ill health related to the heart is likely to be evident in the wellbeing and quality of life in general of such individuals. Therefore

repression as an example of a negative coping method, used by individuals to deal with stressful situations may eventually lead to other problems for the person (Weyers, Ising and Janke, 2005; Chylova and Natovova, 2012). On the other hand, positive coping strategies in general may help people to adjust well to stressful situations for good quality of life and better wellbeing.

2.10 c. i. Limitations of the Transactional or Interactional Model

The model has a range of drawbacks in spite of its usefulness. First and foremost, it is difficult to identify and show what constitutes a stressful situation as people experience a particular stress in different ways. In the same way, coping is also perceived to be individualized as people have different coping styles for a particular problem. In another vein, other people may find some situations or circumstances as stressful due to the fact that they do not have resources to deal with the event. This means that how people experience stress and how they deal with it is subjective.

The second limitation of the model is the difficulty associated with it in terms of determining the respective positions of stress and coping. The question is which one is initiated at first, stress or failure to cope. Do people experience stress when they are not able to cope or it is when they are not able to manage the problem which sets in anxiety or stress, so which one comes first? The third disadvantage of the model is the fact that the secondary assessment component of the model can affect the possible stressor as well as stress response, so which one is affected, the two or one. In addition, the use of some coping methods may rather cause other problems to the person. For example, continuous use of unprescribed pethidine injection by a patient may suppress stress linked with pain, but may lead to long term health

complications. Though the model has lot of shortcomings as explained above, the value of the framework cannot be ignored.

2.10 c. ii. Value of the Transactional or Interactional Model for Stress Management

The choice of Lazarus and Folkman's (1984) model addresses the need identified among the diabetic patients at a hospital in Ghana. In this hospital, individuals who are diagnosed with diabetes are confronted with difficult issues such as the high cost associated with the treatment of the condition and stigma. They are also faced with anxiety and fear related to the unknown outcome of the disorder. As a nurse, the researcher has been approached sometimes by people at the hospital who have the disease who complain of sexual and visual problems among others. There were instances the researcher was approached by patients to pay their hospital bills because they could not afford to pay. The researcher has also observed newly diagnosed diabetic patients who wept severely on hearing that they have diabetes as it was shocking news to them.

Therefore, in light of the researcher's experience and informed by the literature review it would seem feasible for diabetic patients in the situation described above to utilize the primary appraisal of the cognitive component of the model to evaluate the problem at hand as to whether it is a 'harm', a 'threat' or a 'challenge'. The secondary assessment component of the model finds out what the individual be capable of carrying out in order to rise above the crisis at hand looking at the existing and accessible resources. Therefore, the choice of Transactional Model for Stress Management by the researcher for this current thesis. The next chapter considers the research methodology, methods of data collection and data analysis, sampling strategy and ethical issues pertinent to this thesis and designed to answer the following research questions:

- i. What are the coping strategies employed by patients newly diagnosed with type 2 diabetes mellitus?
- ii. What are the `lived experiences` of patients newly diagnosed with type 2 diabetes mellitus?
- iii. What are the perceived causes of diabetes mellitus from the perspectives of patients newly diagnosed with type 2 diabetes mellitus?
- iv. What meanings do patients, newly diagnosed with type 2 diabetes, attach to the diagnosis?
- v. How do patients, newly diagnosed with type 2 diabetes, react to the diagnosis?
- vi. How can patients, newly diagnosed with type 2 diabetes be assisted to live productive lives, cope effectively with the problems associated with diabetes mellitus, and self-manage the condition?

Chapter Three

Methodology and Methods

3. Introduction

The previous chapter considered the literature pertinent and relevant to the research questions posed at the end of chapter one and revisited at the end of chapter two. Consideration was given to the research context, that is, Ghana, its geographical location in sub-Saharan Africa, its health care system, and the burden of disease caused by the increasing numbers of Ghanaian people acquiring diabetes in a context of resource poor and inadequate health care services. The phenomenon of `diabetes-related distress` was noted as co-existing for patients within a cultural context of `being Ghanaian`, and the likely effects of this on the preferred coping strategies of patients newly diagnosed with type 2 diabetes at a hospital in Ghana.

A detailed review of literature concerned with `coping` culminated in a theoretical framework, which reflects the literature and conceptualises a model for understanding coping strategies, namely the `*Transactional or Interactional Model*`. It is suggested that this model has the potential to assist health care professionals to understand the coping strategies currently employed by patients, and subsequently assist patients to cope with and be able to self-manage their diabetes. As a pre-requisite, it is important to understand the current coping strategies of patients at a hospital in Ghana, newly diagnosed with type 2 diabetes using appropriate research methodology and methods. This chapter considers the methodology and methods of data collection deemed best able to answer the research aim and subsequent questions.

In other words, we have noted that among all the research studies reviewed on coping strategies in the review, we were not able to find one of such studies conducted in Ghana. The studies which were found under coping were either carried out in the United States of

America or Europe, which are different settings altogether with unique cultural orientations, as well as other features are relatively dissimilar to Ghanaian situation. These distinctive and significant variations may possibly explain the reasons for the differences in the coping approaches used by type 2 diabetic patients in these two settings. There is the need to explore the gap that has been found regarding coping strategies of patients newly diagnosed with type 2 diabetes in Ghana.

The researcher's aim in this chapter of the thesis is to explore methodology and methods appropriate and capable of addressing the research purpose and other related issues and questions pertaining to this thesis. We can arrive at the appropriate methodology and methods for this study by addressing ontological and epistemological issues regarding the current thesis.

The next section of the methods chapter focuses on ontological and epistemological as well as the methodological issues which direct the researcher as to what position he has to take with regards to methodology in general for this study, drawing on an association between these major pillars of research. The section also presents practical explanations to how ontology, epistemology and methodology are explained in line with the research purpose or questions of the current thesis.

The section ends with the relationship between ontology, epistemology, methodology and positivist and interpretivist research orientations, by trying to establish which research approach the researcher employs for the current thesis, either qualitative or quantitative option.

3.1 Research Methodology

The two major paradigms or ideologies which underpin social investigation are positivist and interpretivist which have distinctive epistemological and ontological assumptions and view the world from different perspectives (McAuley, 2005a). In simple terms, ontology is “a way we see the world”; epistemology is “a way we investigate the world” (McAuley, 2005a). Creswell (2009) explains that ontology is about the “nature of things which exist”. In other words, it is about the nature of what is in the world that can be studied. Further, the question of ontology informs us about the “nature of the universe” (Agger, 2007). In addition (Sprague, 2010), also noted that ontology explains if objects really exist and how they exist in this world. It tries to answer the question of what is there in the world or universe that needs to be researched. All the four researchers (McAuley, 2005a; Agger, 2007; Creswell, 2009; Sprague, 2010) are looking at one specific issue or central theme regarding ontology as a philosophical idiom underpinning research as a “nature of reality” by pointing to an issue of whether there is a “real objective world out there” or “whether reality is constructed through human relationship” (Sprague, 2010). In this sense, ontology as “a science or the study of being” argues concerning what exists, how and what it looks like, what are the major components that make up of what exist, and how the major components of what exist interact with each other to make the unit well understood (Saunders, Lewis and Thornhill, 2007; Blaikie, 2000). In addition to what McAuley, (2005a), Creswell, (2009), Sprague, (2010) and Agger, 2007) noted, Grix (2004) explained ontology as “what is out there to know”, pointing out specifically that the interest of social scientist regarding ontology is to address issues of how the “social world exist” (Grix, 2004). In other words, the question of ontology in the researcher’s case as social scientist is to look at the nature of the social world in order to understand social phenomena and the entities within it. For instance, in this current thesis, the researcher has set off to explore a social phenomenon, the coping methods used by patients

newly diagnosed with type 2 diabetes. The “coping strategies used by newly diagnosed patients with type 2 diabetes mellitus” therefore becomes “what is out there to know” as pointed out by Grix (2004).

In the sense of social scientist, thus in this sense ontology looks at a specific issue in the social world, “about the variety of phenomena in the world” (Delanty and Strydom, 2003), as a posited entity, for instance “coping methods”. In a broad sense, for us to understand the coping methods as in the case of patients newly diagnosed with type 2 diabetes, we need to look and consider the concept of “coping strategies” in terms of what has been pointed out already by Saunders, Lewis and Thornhill (2007) and Blaikie (2000) with reference to what exists, the nature of what exists, the major parts of what exist, and how the parts of existence interact with each other (Blaikie, 2000; Saunders, Lewis and Thornhill, 2007).

In summary, ontology explains people’s views on the subject matter of “nature of reality” as to whether it is an “objective reality” that actually exists or “only as a subjective reality, created in our minds” (Blaikie, 2000; Flowers, 2009). Hatch and Cunliffe (2006) had earlier lingered on what (Blaikie, 2000; Flowers, 2009) noted on the issue of objective reality or subjective reality by dwelling on both “everyday example and a social science example” to demonstrate their ideas. In the case of everyday issue, workplace report was used to find out “whether it actually explains what goes on in the workplace or what the researcher or the writer thinks goes on” (Hatch and Cunliffe, 2006). This takes us further to find out “whether reality exists only through experience of it, thus through subjectivism or whether it exists independently of those who live it, thus through objectivism” (Hatch and Cunliffe, 2006). As a developing researcher, these are the questions which confronted me and needed to be addressed in course of the methodological exploration for this study.

As the researcher has taken into account the diverse views regarding what makes up the nature of reality, the other issue confronting the researcher is how the nature of reality may be studied or measured. In simple terms, how can the researcher discover knowledge about the social world or “nature of reality”? Coming down specifically to the current thesis, as a social scientist, the researcher has already asked several questions around coping strategies. These questions the researcher has asked centre on coping strategies employed by patients newly diagnosed with type 2 diabetes mellitus, the ‘lived experiences’ of patients newly diagnosed with type 2 diabetes mellitus, the perceived causes of diabetes mellitus from the perspectives of patients newly diagnosed with type 2 diabetes mellitus, meanings that patients, newly diagnosed with type 2 diabetes, attach to the diagnosis, how patients, newly diagnosed with type 2 diabetes, react to the diagnosis, and how patients, newly diagnosed with type 2 diabetes be assisted to live productive lives, cope effectively with the problems associated with diabetes mellitus, and self-manage the condition. As the researcher has already noted above, these are examples of social issues or phenomena “the social reality” that this current thesis is aimed at exploring.

As the researcher is trying to develop further links, closely related to “what constitutes nature of reality” or “ontology” is the concept of “epistemology” which centres on the whole suitable approaches of researching into the nature of the social world (Easterby-Smith, Thorpe and Jackson, 2008). However, Eriksson and Kovalainen (2008) mentions that epistemology considers “what is knowledge, sources of knowledge and limits of knowledge”. In addition, Eriksson and Kovalainen (2008) noted that epistemology tries to define knowledge. This is because epistemology argues and bring into being knowledge (Eriksson and Kovalainen, 2008). Further, epistemology considers how we are able to study “what is out there” in the social world (Creswell, 2009). It is therefore about the form and nature of

knowledge, the extent to which it is possible to know the knowledge, its scope and how it spans and its common foundation and source. In addition, epistemology explains how people acquire knowledge and utilize it and also assess if people are able to acquire or get knowledge fully or partially or not. Epistemologists, generally note and take for granted that entities live and that they can investigate how individuals study about them and recognize or be familiar with them (Sprague, 2010).

A look at all the descriptions from the above researchers, Easterby-Smith, Thorpe and Jackson, (2008), Eriksson and Kovalainen (2008), Creswell (2009) and Sprague (2010), with regards to the concept of epistemology, one central idea is uncovered in terms of how knowledge is identified or found. They are all looking at epistemology as a method of generating knowledge. In other words, epistemology considers the processes or appropriate approaches of making enquiries or investigations into the nature of the social world (Easterby-Smith, Thorpe and Jackson, 2008). As a methodological process, epistemology defines the structure of knowledge, possibilities of what knowledge is likely to be known, the scope of the knowledge generated and how it spans and its general basis. With regards to epistemology in terms of scope of knowledge, and how knowledge spans as pointed out by Sprague (2010) is similar to what Eriksson and Kovalainen (2008) mention as “limits of knowledge”.

In summary, epistemology focuses on the question of what knowledge is all about, sources of knowledge and its scope as well as suitable approach of exploration into the social world.

As the researcher has noted in the discussion, epistemology therefore considers research methods or research processes by means of which social phenomenon may be studied. The research methods therefore focus on the processes of generating knowledge (Blaikie, 2000). This statement is similar to an initial assertion by Easterby-Smith, Thorpe and Jackson (2008)

that epistemology considers the processes or appropriate approaches of making enquiries or investigations into the nature of the social world (Easterby-Smith, Thorpe and Jackson, 2008). In simple terms, epistemology therefore equates and associated with the methods used in research to investigate a social phenomenon as Hatch and Cunliffe (2006) has pointed out that epistemology is “knowing how you can know” or “how and what it is possible to know” (Chia, 2002). These explain the methods as to how and what knowledge may be produced. Blaikie (2000) and Easterby-Smith, Thorpe and Jackson (2008) as well as Hatch and Cunliffe (2006), are all considering the process of methods as defined in terms of epistemological stance. It is therefore imperative to note that methodological questions are about how a researcher or an inquirer moves out to explore what exist in the social world (Furlong and Marsh, 2010).

In summary, the above researchers, Furlong and Marsh (2010), Blaikie (2000), Easterby-Smith, Thorpe and Jackson (2008), Hatch and Cunliffe (2006), Chia (2002) and Furlong and Marsh (2010) are explaining methodology as the processes which are used to know social phenomena. In simple terms methodology is concerned with the research design, sampling approach, data collection approach and the processes of analysis of data. In all these it is important to understand the need to examine or assess specific methods to find out how they may lead to a reliable and dependable knowledge.

The ongoing discussions show that there is an association between these three philosophical underpinnings of research, namely ontology, epistemology and methodology in terms of social research. It is important to note that ontology and epistemology primarily stand on the researchers' values and beliefs as well as personal opinions about the nature of the social world, which means that it has methodological outcomes (Hay, 2002; Furlong and Marsh, 2010). Logically, ontology comes before epistemology and finally methodology. Ontology is

about “what is out there, which is independent of our knowledge of it” (Furlong and Marsh, 2010), while epistemology is concerned with how to study what is out there in the social world, which in simple terms focuses on “knowledge gathering process” (Grix, 2004), which is similar to the meaning of methodology as Hay (2002) noted as the “general processes employed in research”, including research design, sampling methods, data collection approach and data analysis to mention a few. However, according to Furlong and Marsh (2010), both ontology and epistemology represent “skin and not a sweater” and so it becomes difficult to “put on and take off” these pillars of research during research activities (Furlong and Marsh, 2010). In other words, ontology and epistemology move together and this may imply that, if the researcher holds certain ontological stand or position, it tends to determine or dictate the epistemological preference as well as its corresponding methodological approach for a particular research. These concepts therefore influence researchers as they prepare to take on a research activity, because the ontological position of the researcher may determine epistemological stand as well as methodological approach employed by the researcher.

However, it is important to note that different epistemological stands is likely to use varied methodology, which may mean that each of these concepts, epistemology and methodology may depend on each other. The idea and connection here is that, diverse ontological and epistemological situations or positions may lead to totally different or varied perceptions on the similar or same kind of social phenomena under investigation (McBride and Schostak, 2012). Nevertheless “neither ontology nor epistemology is prior to the other, but instead the two of them are mutually and inextricably interrelated” (Furlong and Marsh, 2010). It follows therefore that it may not be feasible or likely to subvert or undermine the significance of ontology at the cost of epistemology, which implies that ontology may not be considered as prior to epistemology.

However, according to Read and Marsh (2002), there is nothing wrong for researchers to employ different methodologies when they are operating from diverse or varied epistemological positions or levels and situations.

The researcher has looked at the importance as well as relevance of major philosophical underpinnings of research including ontological, epistemological and methodological issues and how each of them influence or direct the researcher as he prepares to go to field to pursue research. The researcher has also considered the association between these major pillars of research as to how each of them moves along with each other, and how each of them come together to denote largely the significant disparity between a range of ways of knowing.

The immediate subsequent sections show the implications of our understanding of ontology and epistemology as well as methodology to the research focus of the current thesis by indicating aspects of the research purpose and questions which denote ontology, epistemology and methodological issues.

With regards to the current research, the researcher had to think about a social issue, “out there in the world” to be investigated, this concerns ontology, and how to know it, which is the issue of epistemology, which calls for exploration of the phenomenon in question, the coping strategies of patients newly diagnosed with type 2 diabetes in Ghana and other issues around coping, specifically through a methodological processes which help to achieve the main objective of this research.

To expand further and specifically relating the issue of ontology, epistemology and methodology to the research questions and purpose of the current thesis, there is an observable link between these major concepts, ontology, epistemology and methodology

which define the research questions or purpose respectively at each of these levels. For instance, the researcher has ontological, epistemological as well as methodological issues to be addressed around each of the research questions. In general, as the researcher is exploring the coping methods used by patients newly diagnosed with type 2 diabetes in Ghana, there are questions about ontology, epistemology and methodology to be answered. In the same way each of our specific research questions such as how do patients, newly diagnosed with type 2 diabetes, react to the diagnosis?, how can patients, newly diagnosed with type 2 diabetes be assisted to live productive lives, cope effectively with the problems associated with diabetes mellitus, and self-manage the condition?, what are the `lived experiences` of patients newly diagnosed with type 2 diabetes mellitus? and what are the perceived causes of diabetes mellitus from the perspectives of patients newly diagnosed with type 2 diabetes mellitus? have their own questions about ontology, epistemology and methodology to be addressed because these are social issues which “exist out there” that we need to find out “how to know them” and by what methodological approach.

From our previous discussions, the researcher has established that there are associations between ontology, epistemology and methodology which helped us to understand the nature of the research purpose and questions of the current thesis. These links or associations between ontology, epistemology and methodology also have helped us to understand the position of the researcher. For instance if the researcher embraces particular ontological orientations or beliefs and assumptions, they may persuade epistemological preferences or options. Now the discussions take the researcher to the next section of the methods literature denoted by Blaikie (2000) and Saunders, Lewis and Thornhill (2007) as “research paradigm” and “research philosophy” respectively. These concepts are developed from the ontological

and epistemological stands which hold different research approaches. The phrase “an interpretive framework” (Denzin and Lincoln, 2003) and “basic set of beliefs that guides action” (Guba and Lincoln, 1994) stand for a research paradigm. These key terms as noted by Blaikie (2000) and Saunders, Lewis and Thornhill (2007), Denzin and Lincoln (2003) and Guba and Lincoln (1994) above are all looking at one issue and have central role which seeks to explain the type or kind of approach or belief that researchers employ or which suggest broad groupings within which variety of fields or disciplines reside and operate (Creswell, 2009). These key paradigms are positivist and interpretivist or constructivist (Creswell, 2009). From the discussion above there are links between research paradigms and ontology, epistemology and methodology. In other words there is an association between positivist and ontology, epistemology and methodology. Similarly, there is a connection between interpretivist or constructivist and ontology, epistemology and methodology. For instance, the way positivist may approach an epistemological issues may be different from how interpretivist or constructivist will approach such issue. Eriksson and Kovalainen (2008) noted an “objective epistemology as presuming that a world exists that is external and theory neutral, whereas within a subjective epistemological view no access to the external world beyond our own observations and interpretations is possible” (Eriksson and Kovalainen, 2008). In this sense, it is noted that both objective and subjective epistemological perspectives are present.

In summary, the previous section tried to establish the initial relationships between positivist and interpretivist paradigms and the three philosophical underpinnings of research, ontology, epistemology and methodology which suggest for instance, that under positivist orientation, the question of ontology rests on the fact that “there is a real objective reality that is knowable” (Creswell, 2009), whereas the issue of epistemology points out the need for the

researcher for instance, to keep away from any partiality or unfairness which may influence the outcome of the research. On the other hand, under the interpretivist paradigm, the issue of ontology indicates for instance that, several meanings exist of possibly similar data and that under the epistemological implications, the researcher and the research participants are connected building the knowledge together (Creswell, 2009).

The next section gives detailed discussion on positivist and interpretivist orientations to research. At the end of the section, the position of the researcher with regards to these two schools of thought is made known, depending on the nature of the current research including the questions which have been asked already.

Positivist and interpretivist research orientations have respective set of beliefs, values and methods that are pursued in the course of social science research, including nursing.

The positivist approach to scientific research is concerned with testing of theories and hypotheses and upholds the values, beliefs and concepts of universal laws and interested in objectivity and observes an unbiased stance on issues (Collins, 2010). These stances of positivist suppose that social world exists objectively and so the knowledge developed from a research becomes legitimate only when its establishment is based on observations of outside reality (Collins, 2010). Positivist researchers focus on scientific enquiries that have cause and effect relationship and hold the view that human behaviour can be predicted and verified when the environment is modified and controlled. In addition, positivist believes that knowledge is drawn together through direct observation and experience and these are measured scientifically through quantitative approaches such as experiments and surveys in addition to statistical methods (Blaikie, 2007; Easterby Smith, Thorpe and Jackson 2008).

Positivists also hold the view that research findings should be generalized to similar situations and research settings. Major research techniques employed by the positivist researchers are aligned with statistical and mathematical approaches and use structured research methods or techniques to obtain data or information on objective realities (Blaikie, 2007; Easterby Smith, Thorpe and Jackson 2008; Creswell, 2009). Mackenzie and Knipe (2006) also stipulate that positivism is associated with empiricism as their core value of scientific enquiry focuses on observations and measurements and note that as an empiricist point of reference, there is a relationship between cause and effect and predicts association among variables (Mackenzie and Knipe, 2006). According to Mackenzie and Knipe (2006), methods such as experiments are employed by positivist and that such approaches may be controlled as well as measured and employed in testing hypothesis. A major philosophical drawback of positivist theory centres on the fact that it does not focus on meanings attributed to experiences and that social contexts as well as perspectives studied are not brought to light (Mackenzie and Knipe, 2006). Another important limitation of positivist's point of view is that it tends to separate the investigator from the research participant or "what is being researched" (Mackenzie and Knipe, 2006). McGregor and Murnane, (2010) also added their voice to the concept of positivism by pointing out that positivist investigators at the beginning of research process, make out a research topic, followed by putting up suitable research questions as well as hypothesis and employing an appropriate research methodology (McGregor and Murnane, 2010). Additionally, according to McGregor and Murnane (2010), the researchers detach themselves from the participants in the study in order to avoid the researcher influencing the participants, so that distinction is made between what is science and personal experience. Just like the other researchers have acknowledged, positivist theorists employ statistical and mathematical approaches in their research methods. They also

make use of systematic or structured research method to unearth objective reality (McGregor and Murnane, 2010).

There are similarities in what these researchers, McGregor and Murnane, (2010); Mackenzie and Knipe, (2006); Blaikie, (2007); Easterby Smith, Thorpe and Jackson, (2008); Creswell (2009) and Collins (2010) are saying with regards to positivism. All of them agree on a central theme which postulate or suggest that reality is created in the course of operation of natural laws and that these laws are explained through observation. All of them also agree on the fact that the researcher and the observed or the participants are independent individuals and that there is the need for the researcher to keep away from the research participants to avoid the possibility of influencing the participant. In other words, there should be no interaction between the observer and the observed as this may instigate influences on outcomes.

All the studies reviewed in this section under the positivist's ideology agree that positivism is practical and realistic in the sciences such as mathematics, physics, chemistry where stress on quantitative methodology is highly appreciated. In these disciplines quantification is helpful as results are reachable devoid of threat of partiality or bias and influence. In the reviewed studies above, it is only Mackenzie and Knipe (2006), who dwelled on the demerits of positivist theory which focuses on fact that it does not look into meanings attributed to experiences and so social issues and viewpoints studied are not unearthed (Mackenzie and Knipe, 2006). In addition, another drawback of positivism is that it separates the researcher from the entity being investigated. However, the question of permitting the researcher to explore or observe, devoid of allowing principles and standards or values hindering is questionably unfeasible (Somekh and Lewin, 2005). There is also a link over here as

positivist researchers are in line with quantitative research which deals with numbers and use of statistical tests to arrive at objective reality (Collins, 2010; McGregor and Murnane, 2010).

The subsequent section centres on the interpretivist paradigm focusing on its aim and drawbacks. The section ends with how the focus of the positivist approach to research or interpretivist ideology is in line with current thesis. In other words, the position of the researcher is determined after considering our understanding of positivist and interpretivist paradigms in research.

The interpretivist paradigm and orientation conversely rest on the belief that human beings make meanings from subjective reality and that knowledge is developed within the social realm. Among the main aims of interpretivist research are to understand and interpret human experiences, behaviours, perceptions, feelings as well as motives rather than to establish cause and effect connections. The interpretivist researcher is open during the period of research to new ideas and through interactions with the research participants or informants, and come up with all the meaningful dimensions of concepts and ideas under investigation (Elliot and Lukes, 2008). Similarly, Mackenzie and Knipe (2006) recognize that, the research participants as well as the researcher bring their experience into the research which helps them to interpret the world in their own way. The experience of both also is crucial in the construction of a situation in the research (Mackenzie and Knipe, 2006). And just as (Elliot and Lukes, 2008) noted above, the researcher in the interpretivist paradigm needs to be closed to the participants by sharing their attitudes and values or on the other hand, researchers need to suspend their own values and presuppositions to avoid their biases (Mackenzie and Knipe, 2006). According to interpretivist, facts and values are not likely to be detached, and that understanding is unavoidably biased as it is “situated in terms of the individual and event”

(Elliot and Lukes, 2008). Additionally, from the interpretivist's point of view, in order to understand a social phenomena or action, a researcher undertakes an in-depth exploration of meanings and motives behind such actions or phenomena identified based on subjectivity (Elliot and Lukes, 2008). Interpretivist paradigm employs research methods such as interviews, focus group discussion and research diaries as these methods allow unpredictable or inconsistent data to be recorded as possible. Abott (2010) pointed out that behaviour of human beings are not static and so interpretivist approach to research is suitable to explore actions of human beings. For instance if they are aware that they are being observed or watched, their behaviour may change. Because of this reason, interpretivists are of the view that in order to "understand social action" we have to go deeply into the rationale and meanings of such actions or behaviours so that we can understand them well. For example, in the current thesis, interpretivist may express interest to understand how people cope with type 2 diabetes, what factors define coping experiences of the type 2 diabetics in the Ghanaian context, and what meanings do they attached to living with type 2 diabetes mellitus in a resource poor environment like Ghana as well as their perceived causes of the condition.

As much as interpretivists are able to bring to light the sense of meanings of social actions, it has certain drawbacks. Interpretivism is not capable of permitting generalization as in most cases small number of participants is involved in interpretive research (Payne and Williams, 2005; Creswell, 2007). However, Pace and McMurray (2004) argued that due to rigorous nature of interpretive investigations, researchers are able to explore variety of issues and viewpoints which may possibly have been obscured.

The three studies by, Elliot and Lukes (2008), Mackenzie and Knipe (2006) and Abott (2010) are all with the view that interpretivist research are concerned with understanding and

interpreting human experiences and behaviours as well as perceptions, feelings and motives unlike positivist paradigm which seeks to examine cause and effect relationships. However in the review, only Elliot and Lukes (2008) and Mackenzie and Knipe (2006) noted that both researcher and participant bring their unique experiences into the research arena which is crucial in the construction of situations or reality and that the researcher is open to new information and ideas due to this type of interaction with the research participant.

Similarly, only Elliot and Lukes (2008) and Abott (2010) acknowledged that in the interpretivist sense, in order to understand social actions, there is the need to delve deeply into the reasons and meanings of actions or behaviours or phenomena in order to understand them well, and this is based on subjectivity. The idea suggests that interpretivism is in line with qualitative research which also seeks to explore and understand human experiences, behaviours as well as feelings and perceptions.

However, the term post-positivist, has been used by McGregor and Murnane (2010) to represent interpretivist ideology where human beings are recognized as essential or central to an investigation process and that according to this orientation, research occurs in societies, examining routine lives of people in their natural setting but not in the experimental. In addition they note that in post-positivist research, there are places or roles for both the research participant and the researcher (McGregor and Murnane, 2010). The idea in this research is to explore for meaning instead of applying the universal or general law to find cause and result or effect relationships as postulated by positivists (McGregor and Murnane, 2010).

In summary, the researcher has noted that the positivist approach to scientific research is associated with testing of theories and hypotheses and supports the principles, attitude and

theory of universal laws or general laws and interested in objectivity and upholding the quantification of objective reality. On the other hand interpretivist theorist is interested in understanding and interpreting human experiences and behaviours as well as perceptions, feelings and motives through approaches such as interviews, including both structured and semi-structured interviews, focus group discussions and research dairies. The purpose of interpretive inquiry is based on subjective reality.

Now, the two approaches as the researcher has discussed above have implications for the current thesis in terms of which is appropriate to be used. The nature of what is been studied may determine the methods that are employed for the research. In the same vein, the nature of what is been studied may also determine who is supposed to research into it. In other words, the nature of what is “out there in the social world” or the phenomenon to be explored determines its methods of investigation. Thus, ontological issue or question leads us to epistemological as well as methodological approach to research.

At the moment, referring back to the literature chapter, the reviewed literature on coping strategies employed by diabetics revealed that there is a gap on coping modes used by Ghanaians with type 2 diabetes. This study is therefore aimed at exploring this social phenomenon to unearth the living experiences of coping of patients newly diagnosed with type 2 diabetes. The “coping strategies used by patients newly diagnosed with type 2 diabetes mellitus” therefore represents what is “out there in the social world” to be studied. The question is to determine who is to study it and by what methodology.

The subsequent section informs us about our choice between positivist and interpretivist paradigms with particular reference to quantitative and qualitative methodologies respectively.

The descriptions of the two schools of thought (that is, positivist and interpretivist paradigms) so far indicate that positivist orientation to research is aligned with quantitative research while qualitative research is based on interpretivist's paradigm. Qualitative or quantitative approach to research presents reality from a different perspective and suggests alternative course or pathway to our understanding of reality. Nurses are open to these research approaches but the choice of any of them depends on the type of research one is undertaking, as well as research questions one wants to answer.

The following section introduces brief discussion on the various forms of qualitative approaches to research available to us and settling on one of them for the present thesis with rationale. The common ones which have been introduced below are ethnography, phenomenology and grounded theory.

According to Anderson (2010), "qualitative research involves the collection, analysis, and interpretation of data that are not easily reduced to numbers" (Anderson, 2010, p. 1). The data obtained for qualitative research are concerned with issues of the social world regarding concepts as well as of the people who live in the world or society (Anderson, 2010).

However, according to Chan, Fung and Chien (2013) qualitative data are gathered through narratives of research participants through in-depth interviews, in which the responses from participants are presented using verbatim quotations or exemplars (Chan, Fung and Chien, 2013). Similarly research investigations concerned with exploring and understanding human experiences, behaviours, perceptions, feelings as well as intentions and illustrate them in a vivid fashion is a qualitative study (Letts et al., 2007). From the various definitions of qualitative research, all the three studies Anderson (2010), Chan, Fung and Chien, (2013) as well as Letts et al., (2007) are with the view that qualitative research is not about

quantification of numbers but is concerned with exploring and understanding human experiences, behaviours, perceptions, feelings through interactions between the researcher and the research participant. In this way people as research participants need to tell their story of their experiences, perceptions and feeling to mention a few. From Chan, Fung and Chien, (2013) definition of qualitative research, qualitative data is obtained through interviews, Anderson (2010) did not show the source of data in qualitative research. Similarly, Letts et al., (2007) looked at what constitutes qualitative data such as human experiences, behaviours, perceptions, feelings and motives without considering their sources. There are a variety of forms of qualitative research approaches which are available to researchers. These are ethnography, phenomenology and grounded theory (Letts et al., 2007). Wilding and Whiteford (2005) also has noted the various design types or forms of qualitative methods including ethnography, grounded theory and phenomenology which are commonly employed by researchers (Wilding and Whiteford, 2005). The choice of any of the three approaches above depends largely on the nature of the research questions of interest to the researcher. These approaches are considered below in relation to the aims of the research, before offering a rationale for the choice of phenomenology as appropriate for the purposes of this thesis. First, let us look at ethnography briefly.

3.2 Ethnography

Ethnography focuses on the study of culture of a group of individuals who reside or live in a particular place, by exploring into their daily lives, to recognize their cultural values as well as delving into their tangible culture such as buildings, tools used in daily activities as well as other physical items which symbolize their cultural heritage and tradition (Letts et al., 2007). Culture is not only associated with the group of people living in a particular geographic setting but it embraces all facets of life of the people with that culture. For example their

culture affects organisational structures and systems of these people as well as their educational programmes, health systems and other sectors of their economy and social life including their ways of thinking (Letts et al., 2007). Ethnographic enquiry looks at how people live in a particular culture by examining their way of life in terms of values, traditions, beliefs and practices (Langdrige, 2007). In ethnographic research, the investigator has face to face interactions with the people being studied in all their social activities. This interaction between the researcher and the participants takes place at some stage in a fieldwork. During this period the researcher interacts with the people in that society and has casual discussion with about 25 to 50 community members in an effort to collect data about the culture. Data is collected through the use of participant observation and in-depth interviews which allow the researcher to obtain the needed information (Zakiya, 2008; Mason, 2010).

3.3 Grounded Theory

Grounded theory centres on theory development due to the fact that the focus of qualitative research in this sense entails searching to find key social procedures in a given social context (Langdrige (2007). Grounded theory is aimed at identifying associations which exist between concepts at a particular level which come together to form a whole. Glaser and Strauss were the major proponents of grounded theory in the 1960s and developed under the premise of symbolic interactionism (Chenitz and Swanson, 1986). Grounded theory approach to qualitative investigation takes into account participant observation and interviewing during data gathering and usually about 20 to 30 theoretically sampled participants are recruited in such studies. Theoretical sampling approach in grounded theory research becomes paramount when particular or unique participants are required based on the budding or up-coming themes or issues associated with a study.

The third type of qualitative research considers definition of phenomenology and brief historical perspective, linking a discussion on the two basic types, transcendental phenomenology, and hermeneutic phenomenology. At the end of their discussions, the choice is made between the two for the current thesis based on the research focus of the present thesis.

3.4 Phenomenology

Finlay (2009) defines phenomenology as a type of qualitative research which studies phenomena, taking into consideration their nature and meanings. It considers how reality or things are perceived by people by way of their experiences in which the phenomenological investigator plans to offer a rich and meaningful textured account of lived experiences of the people who are studied (Finlay, 2009). Phenomenological approach to qualitative nursing research looks at the experiences as lived by people. Usually 10 or a small number of participants are employed for phenomenological studies (Polit and Beck, 2008). Similarly, Langdridge (2007) defines phenomenology as a qualitative approach to research which “aims to focus on people’s perceptions of the world in which they live in and what it means to them; a focus on people’s lived experience” (Langdridge, 2007). In other words it focuses on human experience and deals with meaning that people attach to their everyday experiences. Grbich (2007) also noted that phenomenology is a method employed to understand meanings of experiences that are concealed.

Finlay (2009), Polit and Beck (2008), Langdridge (2007) and Grbich (2007) are all looking at phenomenology as a qualitative method from one particular angle. They all acknowledge that phenomenology as qualitative method has the capacity or the potential to break through into the deep layers of the human experiences and examine a phenomenon and spells out the original form of the experience or the phenomenon as “lived by the people” (Pascal, 2010). In

their view lived experiences of people is the core issue surrounding the overall deliberations on phenomenological investigations (Pascal 2010; Kafle, 2011). All of them are also saying that phenomenological approach to the study of a phenomenon is an open and impartial process in which the informants naturally tell of their lived experiences from their own perspectives through an interview (Kafle, 2011). Therefore phenomenological enquiry is based on subjectivity from the informant's own experience. In this way, the description of the phenomenon under study is devoid of "subjective biases" from the researcher's point of view (Kafle, 2011), an assertion which is similar to the belief shared by the interpretivist ideology, where the interpretivist note that human beings make meanings from subjective reality and among the main objectives of interpretivist researchers are to comprehend and interpret individual experiences, actions and behaviours, perceptions, belief and intentions through subjectivity (Mackenzie and Knipe, 2006). However, it is only Polit and Beck (2008) who mentioned that small number of participants is usually employed for this study.

The application of the above definitions of phenomenological approach to qualitative research is that, as this current thesis attempts to understand from the perspectives of the patients themselves, the coping strategies employed by newly diagnosed patients with type 2 diabetes mellitus is seemed particularly appropriate to choose a methodology premised on the belief that it is possible to come to understand the 'lived experiences'.

The previous section has looked at the various definitions of phenomenological research. The next section centres on the historical perspectives of phenomenology focusing mainly on the Husserlian and Heideggerian schools of thought, and identifying which of the schools the current researcher belongs to based on the current research focus, and considering the socio-cultural and professional background of the researcher.

The term phenomenology is mainly connected with Edmund Husserl (1859-1938) through whom the term gained popularity in both west and east at the beginning of the 20th century as transcendental phenomenology (Kafle, 2011), a term which denotes “the live-world, the foundation upon which phenomenological thought is built” (Pascal 2010; Kafle, 2011). The origin of phenomenon is from the Greek word ‘phainesthai’ which means to make something ‘become visible’ or ‘to come into light’. In actual sense the word ‘phainesthai’ was developed from ‘phaino’ a Greek term which literary means to unearth or uncover or disclose in entirety. This means that phenomenology is the approach taken to make what is hidden come to light (Wojnar and Swanson, 2007).

As the researcher has pointed out already, Husserl is mainly connected to transcendental phenomenology in which it is always important for the researcher to place the self aside so that people’s lived experiences are not ‘contaminated’ with the researcher’s views. The informant is allowed in the natural sense to provide the information based on what has been experienced on a particular topical issue, the ‘phenomenon’ (Kafle, 2011), “the lived experience itself, as described by the participant, is used to provide universal description of the phenomenon” under investigation (Wojnar and Swanson, 2007). The fundamental principle of this school of thought is that phenomenologist is committed to the conception that experience is to be “transcended” to find out reality or the truth (Kafle, 2011).

Husserlian transcendental phenomenology is based on the concept of “phenomenological reduction” in which the personal suppositions are required to be suspended in order to arrive at the true essence of the “lived experience” under investigation (Kafle, 2011). The process of putting aside the researcher influences and allows the respondents to provide the needed information on the phenomenon under investigation is what Husserl termed as ‘bracketing’ or “reduction” in phenomenological investigation. In phenomenological studies, the concept of

bracketing is termed 'epoche' (Kafle, 2011), an important and initial move to ensure that the phenomenon being studied is exclusively represented from the research participants' own perspectives. Epoche is a Greek word which means to move away from preconceived ideas so that individuals' perceptions are not influenced or "contaminated" (Pascal 2010), in order to provide fundamental or essential and graphic appearance of the phenomenon being studied (Kafle, 2011).

According to Pascal (2010), Husserl is noted as the foundation father of phenomenological research which seeks to explore the "conscious lived experiences of phenomena" Pascal (2010), principally how an experience or a phenomenon is perceived in daily life of an individual or group of people (Pascal 2010), and so Husserl's main purpose in phenomenological research is to "understand the world of the research participants", which he termed "lebenswelt" (Pascal 2010). Husserl pointed out that the way to knowledge was "back to the things themselves" thus "back to the experience of everyday life" (Pascal 2010). According to Pascal (2010), through bracketing, the researcher is able to stay away from one's own preconceived ideas or subjectivity, so that the researcher is able to examine the entity such as an experience or a phenomenon critically how the researcher perceives it (Pascal 2010). In this way a complete understanding of the experience or the phenomenon is achieved by the researcher. A challenge to this school of thought regarding bracketing is that Husserl wanted to mean that the researcher may isolate knowledge from experience which may not be possible as "knowledge is developed from experiences" from individual entities or group of people (Pascal, 2010).

Balls (2009) mentions that descriptive phenomenology is credited to Husserl, which studies "persons lived experiences" and employs the concept of bracketing to ensure objectivity or neutrality. According to Balls (2009), bracketing entails a situation whereby the researcher

puts aside what he/she knows already regarding the phenomenon under examination. The researcher then approaches the phenomenon being studied with no prejudice or presumptions (Balls, 2009).

Wojnar and Swanson (2007) have also expressed so much in line with what other researchers have identified on Husserlian approach to phenomenological study. They used the descriptive or transcendental phenomenology interchangeably to mean investigating “human experiences” (Wojnar and Swanson, 2007). “Transcendental subjectivity” is used here to explain “bracketing” in which the researcher must strip away his or her personal experiences during research in order to avoid biases which are likely to influence the explanation and description of an experience or phenomenon being studied. They have mentioned three processes involved to ensure bracketing. These are “separating the phenomenon from the world and inspecting it”, “dissecting the phenomenon to unravel the structure, define it, and analyse it”, and “suspending all preconceptions regarding the phenomenon” (Wojnar and Swanson, 2007). Thus researchers need to confront the research without preconceived ideas during the research processes including their interactions with participants such as listening and during analysis of data from participants. Because of the issue of bracketing, some researchers have pointed out that it may not be even necessary to do literature review prior to embarking on research in order to avoid influences by our prejudices or suppositions or what we already know about the phenomenon we want to study (Wojnar and Swanson, 2007). It has also been noted that whether avoiding literature review prior to the research will make no difference “when personal experiences or biases cannot likewise be summarily dismissed, and that the literature itself may even serve as a source to neutralize personal bias” (Wojnar and Swanson, 2007). On this note it is believed that bracketing helps to increase our insight into familiar or universal “features” or descriptions or issues of several “lived experiences”. The “features” are what Husserl referred to as “universal essences” or “eidetic structures”

which are recognized to signify the real nature of the experience or phenomenon being examined (Wojnar and Swanson, 2007).

A look at the descriptions and explanations of phenomenology from the Husserlian perspective as illuminated by the four studies, Kafle (2011), Pascal (2010), Balls (2009) and Wojnar and Swanson, (2007) in the review indicate that all of them agree on phenomenology as a central concept whose tenets rest on “lived experiences” of people, as described by research respondents, to bring to light a phenomenon as experienced or lived by the people themselves (Lopez and Willis, 2004). However, it was only Pascal (2010) who employed “*lebenswelt*” to denote participant’s “life world” in which research respondents’ experiences, feelings, perceptions as well as motives and similar social phenomena may be unveiled. Pascal, (2010) did not specifically mention “transcendental phenomenology” as we know that it connects Husserl in particular, but used the general term “phenomenology” to describe and explain ideas in Husserlian transcendental phenomenology, whereas only Balls (2009) among the four studies used the term descriptive phenomenology to mean transcendental or Husserlian phenomenology. In a similar vein, Wojnar and Swanson (2007, noted bracketing in terms of the need to examine researchers’ own preconceived ideas and sideline them but also considered a key term “transcendental subjectivity” to symbolize phenomenological bracketing. All the studies reviewed, Kafle (2011), Pascal (2010), Balls (2009) and Wojnar and Swanson (2007) mentioned bracketing to mean the need for the researcher to put preconceived ideas aside during research, however Kafle (2011) used phenomenological reduction and bracketing as well as the concept of “*epoche*” to explain why it necessary for the researcher to “move away from preconceived ideas” during the research processes (Kafle, 2011) to ensure that the true picture of what is being investigated is unearthed from those who are actually experiencing the phenomenon. As a further step to expand phenomenological bracketing, it is only Wojnar and Swanson (2007), who mentioned the

processes involved in bracketing including three phases “separating the phenomenon from the world and inspecting it”, “dissecting the phenomenon to unravel the structure, define it, and analyse it”, and “suspending all preconceptions regarding the phenomenon”. Through these processes, researchers may be able to out universal “features” of “lived experiences” denoted as “universal essences” or “eidetic structures” which represent the actual nature of phenomenon under investigation (Wojnar and Swanson, 2007).

As much it is important to bracket ourselves as researchers from our presumptive ideas during research by the proponents of Husserlian transcendental phenomenology, Pascal (2010) pointed out that one of the drawbacks of bracketing supposes that “knowledge is separated from experience” which may not be possible. This is because it is from what we know, or out of our experiences or perceptions that knowledge may be developed (Pascal, 2010). The issue of Pascal’s 2010 assertion that knowledge may not be separated from experience has already been raised by Wojnar and Swanson, (2007) that if that is the case then even literature reviewing prior to research may not even be necessary as that will influence researchers stand on issues or phenomenon to be explored.

In summary, the researcher has been looking at the Husserlian school of thought on phenomenology from the perspectives of four studies Kafle (2011), Pascal (2010), Balls (2009) and Wojnar and Swanson (2007, all of them expressing their general understanding of phenomenological studies in terms of “lived experiences” of individuals or group of people in their “own world”, through a process of “bracketing” or “reduction”, an “epoche” or “transcendental subjectivity”, where researchers’ prior knowledge of the phenomenon being investigated are supposed to be suspended (Wojnar and Swanson, 2007; Balls, 2009; Pascal, 2010; Kafle, 2011).

The next section examines qualitative phenomenological investigation by Martin Heidegger (1889-1976) which centre on hermeneutic or interpretive phenomenology. At the end of the discussions, the researcher makes a decision with rationale about which one of the two approaches, namely, transcendental, and hermeneutic phenomenology to be employed for the current thesis.

The work on qualitative phenomenological investigation by Martin Heidegger (1889-1976) centred on hermeneutic or interpretive phenomenology, which proposes that human beings are part of the world, and that persons are not separated from the world. The tenets of bracketing according to Husserl indicate that knowledge is separated from experience but this assertion is challenged by Heidegger, a former student of Husserl (Reiners, 2012), in that “meanings are co-developed through our shared humanness and life experience” (Reiners, 2012). This perspective forms the major concept regarding Heideggerian approach to hermeneutic phenomenological research. There is key dissimilarity between Husserlian transcendental phenomenological approach and hermeneutic or interpretive phenomenology by Heidegger. From Husserlian phenomenological paradigm, it is important to ensure bracketing whereby the researcher must set aside all presuppositions during data collection and analysis. On the other hand, Heideggerian hermeneutic or interpretive approach to phenomenology advocates that the researcher is part of the participant’s world and for that matter bracketing is not possible in Heideggerian sense (Reiners, 2012). This is because, hermeneutics presuppose previous understanding or knowledge of a phenomenon to be investigated and that it is not possible to wipe out our previous experiences associated with the phenomenon being examined (Reiners, 2012). Heideggerian hermeneutic or interpretive phenomenological approach to qualitative research centres on the concept of ‘Dasein’ in which the researcher is said to be part of the respondents’ world (Pascal, 2010). The word

‘Dasein’ literally means “being in the world” with other people. This means that the researcher is not disconnected or standing apart from the world of others but share common experiences with others (Reiners, 2012) and so in phenomenological qualitative research, understanding of the world of others is not possible if the researcher isolates him or herself from the research participants. In other words, the individuals and their world are one, prompting Heidegger to say that “the world and the individual are indivisible; no world, no being and no being, no world” (Heidegger, 2000). In line with the Dasein, Heidegger pointed out that, it is fundamentally “temporal”, thus as human beings we live in our own personal and social historical perspective, and that the “temporality” may be explained in terms of the “past, present and future” and how they influence our being in the world (Heidegger, 2000). In human existence, the past is made known to us by way of our “moods”, whereas the present is evident in the course of words or language and meaning, and future is anticipated and indefinite. Therefore, temporality shows “being in time” stressing the impermanence of our survival as human beings (Heidegger, 2000). According to Reiners (2012), interpretive phenomenology is employed for a qualitative study when meaning of a phenomenon is asked, when the researcher does not set aside his presuppositions or biases but they do have prior knowledge of question or situation under investigation (Reiners, 2012).

Similarly, Lopez and Willis (2004) also noted Heidegger as a former student of Husserl and acknowledged that human beings are hermeneutic or interpretive beings who have the interest to identify meaning and significance in their personal lives, and that phenomenological investigation is about the understanding of individuals in society which is not likely to happen when the culture, social perspective or context are isolated from their experiences (Lopez and Willis, 2004). According to Lopez and Willis (2004), hermeneutic is from a Greek word “Hemes” which was a Greek god, capable of interpreting events and making

issues appear clear to other gods and people. In that sense, hermeneutic study explores what is hidden in terms of human experiences and relations and brings them to light or bring them to bare (Lopez and Willis, 2004). This assertion by Lopez and Willis (2004) that hermeneutics examines human experiences and relations to bring them to light are equivalent to our previous understanding of a phenomena as emanating from the Greek word 'phainesthai' which means to make something 'become visible' or 'to come into light' (Wojnar and Swanson, 2007). This suggests that phenomenology is the approach taken to make what is hidden come to light (Wojnar and Swanson, 2007). In terms of human experience, hermeneutics explore for meanings attached to these experiences associated with universal living practices of individuals and groups of people (Lopez and Willis, 2004). These meanings are not plain or evident to the participants who give the information however can be picked up from the story formed by respondents, and so hermeneutic study is about what people experience and not what they intentionally make out (Lopez and Willis, 2004). Lopez and Willis (2004) refers to individual's "lifeworld" to mean that personal experiences are influenced by the world in which we live. An expansion of this term is "being in the world" which according to Heidegger is the fact that as social beings dwelling in the world we cannot isolate ourselves from the world, and so individuals' story is about what they learn or experience daily (Lopez and Willis, 2004). Hermeneutic study therefore is interested in describing meanings of the research participants "being in the world" and in what ways these meanings identified influence their lives in terms of choices that they make in general as social beings (Lopez and Willis, 2004). The use of presuppositions are valued in hermeneutic inquiry as it guides the researcher and makes the research a meaningful activity as it is impossible to isolate the "the mind of the background of understandings that has led to the researcher to consider a topic worthy of research in the first place". For instance it may be through the literature review that the researcher will come to know that there is a problem or

a gap to be studied and so it is through this knowledge that the researcher will plan the data gathered from the literature review to commence the entire research. This means that the concept of bracketing as proposed by Husserlian descriptive approach to phenomenological research is problematic, not in agreement and doubtful in the “eyes” of hermeneutics (Lopez and Willis, 2004). A significant concept regarding Hermeneutic approach is “co-constitutionality” which informs us that the meanings which the researcher notes down are coming from both the researcher and the participant in terms of the aims of the investigation (Lopez and Willis, 2004). This is what Gadamer’s classic work of 1976 referred to as “fusion of horizons” to mean the act of “subjectivity, understanding and interpretation” (Lopez and Willis, 2004). These horizons as conceptualized by Gadamer are the backdrop of a variety of postulations or suppositions, thoughts or ideas, meanings and individual experiences which people have. These environments or backgrounds are not stable in nature and subject to modification as a result of “world events in time and history” (Lopez and Willis, 2004).

Kafle (2011) also sheds light on Heidegger’s hermeneutic phenomenology with the aim of interpreting people’s experiences based on subjective experience of people or groups. In other words, it is intended to reveal the world as it is experienced by persons when they tell their life stories on particular issues or phenomenon (Kafle, 2011). Kafle (2011) indicates that hermeneutic phenomenology is about understanding of text and that the aim of the researcher in this sense is to develop a rich and in-depth narrative of the experience or the phenomenon been studied through instinct (Kafle, 2011), and points out that there is no need to do bracketing and to be able to overcome the question of bracketing, as researchers we have to acknowledge our hidden suppositions and endeavour to make them open and plain (Kafle, 2011). By this Kafle (2011) is trying to suggest the need to make our biases known as researchers prior to the research activities, similar to the processes involved in reflexive

account. According to Kafle (2011), data analysis in hermeneutic research is done mainly by the use of “hermeneutic circle” in which “reading, reflective writing and interpretation” are done in a thorough manner (Laverty, 2003).

The issue of quality of the whole research is maintained through processes outlined as “orientation, strength, richness and depth” (Kafle, 2011). Orientation takes into consideration, the participation of the researcher in the world of the research participants and their account. In terms of strength, we are concerned with the extent to which the text signifies the main purpose of the understanding of the intrinsic connotations or meanings as articulated by the research participants in the course of their stories or narratives (Kafle, 2011). Richness represents the artistic value of the text which tells the meanings of experiences or perceptions of the research participants. Depth is the extent to which the research text is able to describe in details the meaning or the purpose of what the research participant expresses as contained in their stories (Kafle, 2011). However, Langdrige (2007) suggests “analytical rigour, persuasive account, and participant feedback” as the main approaches to ensure trustworthiness or quality in hermeneutic research. In ‘analytical rigour’, the researcher ensures that consideration is given to any statement, word, sentence or phrase that substantiate or authenticate a theme or note and that “not taken for granted attitude is permitted during the hermeneutic analysis” (Langdrige, 2007). Analytical rigour seems similar to the concept of “depth” as proposed by Kafle (2011) as the extent to which text describes the meaning as contained in the participants’ experiences explain the extent to which word, phrases, sentences and statements represent participants’ experiences in hermeneutic research (Langdrige, 2007). The “persuasive account” is ensured if the researcher is able to write the story to appeal to the reader to understand and be convinced to see himself as the participant as they read the stories. The “participant feedback” ensures that hermeneutic phenomenological research findings represent exactly what the participants

intended to say, when they are given the chance to respond to what is carried in their stories (Langdridge, 2007).

In order to make these quality issues applicable and effective in hermeneutic research, it is suggested that rhetoric style of writing is crucial in which how the language is used is imperative (Kafle, 2011). This is because, as we know, hermeneutic phenomenology is intended to make clear the major meanings as experienced by the research participants, and so common daily language may not be able to articulate what the participants may have to say. And that may explain why hermeneutic phenomenology requires rhetoric style of reporting in order to bring out the main experiences or intentions of the research participants. “A language mode with informal tone with idiographic expressions full of adages and maxims is considered suitable for reporting this type of research” (Kafle, 2011). However, none of the studies, Lopez and Willis, (2004) and Reiners, (2012) mentioned the need to apply rhetoric questions, but Reiners (2012) articulated how and when either an interpretive phenomenology or descriptive phenomenology research is applicable, and this is based on how the research questions are developed, as research questions interested in identifying meanings of experiences are directed towards hermeneutic interpretive approach to research whereas question directing towards description of experiences match with Husserlian descriptive method (Reiners, 2012).

Equally important in the hermeneutic research is the need to uphold ethical issues such as protection of respondents by way of ensuring privacy, getting informed consent, making known the nature of the study to the participants before the commencement of the research, the need to give pseudonyms or false names to participants to avoid easy identification as well as the need to show and inform the research participants the findings of the research (Creswell, 2007). The need to ensure that ethical issues are adhered to has also been mentioned by Pascal (2010) who noted that in hermeneutic phenomenology, ethical concerns

centre on privacy, informed consent, the use of pseudonyms, confidentiality and the protection of participants from any form of harm including physical as well as psychological harm and keeping away from dishonesty (Pascal, 2010). These are similar to what Creswell (2007) outlined but the issue about the need to explain the nature of the study to the research participants was not included in what was presented by (Pascal, 2010). However, it is only Pascal (2010) who acknowledged the use of “intersubjectivity” in hermeneutic phenomenological research as way to improve fairness between research participants and researchers. This is because the researcher is obliged to take care of participants in terms of respect because the participants share their knowledge as well as their experiences and human privileges and rights with the researcher (Pascal, 2010).

All the three studies, Reiners (2012), Lopez and Willis (2004) and Kafle (2011) believe in central tenet of hermeneutic phenomenology as concerned with subjective experience of individuals and groups, in which interpretation of lived experiences or phenomenon stand out. Another similarity among the three authors, Reiners (2012), Lopez and Willis (2004) and Kafle (2011) bracketing or phenomenological reduction is not possible in hermeneutic phenomenological studies, as researchers are part of the participants’ world and as such they are also influenced by the cultural environment in which they live, which suggests that our presuppositions cannot be hidden (Kafle, 2011). Among the three studies, it was Kafle (2011) who suggests to avoid hassle of bracketing as researchers, we should make our biases known as researchers prior to the research activities. All of them agree on Heidegger as a former student of Husserl who departed from the Husserlian perspective which stress on the need for researchers to bracket themselves to avoid personal biases.

In our quest to understand the operations of hermeneutic phenomenology, it is only Reiners (2012) among the three authors Reiners (2012), Lopez and Willis (2004) and Kafle (2011)

who demonstrated instances when interpretive phenomenology is applied when research questions which seek to find meanings of a phenomenon are asked. A distinction was also made as to when descriptive phenomenological approach to qualitative research is useful, when the research question seeks to ask for a description of a phenomenon. However, through description, the meaning of an experience comes out (Watts, 2001), which creates contradiction.

None of the writers noted that hermeneutic is from Greek word “Hemes” but Lopez and Willis (2004), which they explained as Greek god, capable of interpreting events and making things come to light. In addition, Lopez and Willis, (2004), explained that humans are “beings in the world” who cannot isolate themselves from the world which accommodate research participants, which other authors Kafle (2011), Pascal (2010) and Wojnar, and Swanson (2009) used key term “Dasein” to represent the same concept of “being in the world”. It is only Lopez and Willis, (2004), who noted “co-constitutionality” to indicate that both the researcher and the participant develop the meanings together in hermeneutic research in accordance with the aims of the research. However, it is on this issue that Lopez and Willis (2004) notes that Gadamer in 1976 used the term ”fusion horizons” to represent the background suppositions, thoughts, meanings and individual experiences which are subject to changes in this world (Lopez and Willis, 2004). Lopez and Willis (2004) as well as Reiners (2012) did not mention hermeneutic circle but Kafle (2011) who established that data analysis in hermeneutic phenomenology is carried out through “hermeneutic circle” in which “reading, reflective writing and interpretation” are performed in a methodical way (Lavery, 2003).

The previous section examined hermeneutic phenomenological research based on discussion between Reiners (2012), Lopez and Willis (2004) and Kafle (2011) who believe that

hermeneutic phenomenology is concerned about subjective experience of individuals and groups, in which interpretation of lived experiences or phenomenon is the prime motive. And central to hermeneutic phenomenological research is the need to avoid reduction or bracketing as both the researcher and the participant construct the meaning together in the social world. Other issues of concern regarding hermeneutic phenomenology research were raised in our discussion which centred on “hermeneutic circle” in which “reading, reflective writing and interpretation” are significant in hermeneutic data analysis (Lavery, 2003), as well as the issue of quality assurance in the entire research process through “orientation, strength, richness and depth” (Kafle, 2011) and also by means of “analytical rigour, persuasive account, and participant feedback” suggested by Langdridge (2007). The section also included the need to apply rhetoric language in hermeneutic phenomenological research as a way to bring out the main experiences or intentions of the research participants. The section ended on the importance of ethical issues to be considered in hermeneutic phenomenological research, focusing on ensuring privacy, informed consent, making known the type of the study, use of pseudonyms, ensuring confidentiality and the protection of participants from damage as well as the use of intersubjectivity to understand the values and rights in general of participants (Creswell, 2007; Pascal, 2010).

The next section examines the decision the researcher has to make with rational on the choice between the two approaches, transcendental, and hermeneutic phenomenology.

3.5 The Position of the Researcher Between Transcendental and Hermeneutic Phenomenology

In the researcher’s interactions with patients with diabetes as a professional nurse working and also a nursing lecturer in a School of Nursing in Ghana, the researcher has observed and

learnt from these patients their experiences living with and coping with diabetes. In these interactions, the researcher has observed that their experiences living with the condition centre on issues such as interruptions associated with physical signs and symptoms, psychological interruptions such as anxiety related to the unknown outcome of the condition, economic interruptions associated with the condition such as finding it difficult to get money to buy medication and attend hospital, dietary disruptions such as difficulties associated restrictions on particular diets and social interruption, chief among them is stigmatization of patients. Similarly, other issues which have been raised by the research question such as their perceived understanding of the causes of diabetes, meanings they attach to the condition, their coping methods for dealing with diabetes as well as their reaction to diagnosis will be explored in this current thesis.

The researcher has firm believe that these living experiences of the newly diagnosed type 2 patients as well as other issues which the research questions address may be effectively explored through hermeneutic phenomenological approach of research which seeks to “investigate the experience as it is lived, describing the phenomenon through writing and rewriting, and consideration of parts and whole” Chan, Fung and Chien, (2013). Hermeneutic phenomenological approach will reveal what it means to live and cope with type 2 diabetes in Ghana where there is different socio-cultural environment.

In the researcher’s own view using phenomenology approach to qualitative research, the researcher beliefs that total bracketing is not possible for him as a professional nurse in Ghana who has had prior interactions with Ghanaian patients suffering type 2 diabetes mellitus. If the researcher brackets all these factors which have been mentioned above, the central or the actual meanings or picture of their experiences may not be expressed in the way it should be.

In this thesis, the researcher found that his background as a Ghanaian nurse affected his understanding of participants because the researcher believes that the purpose of our background is to appreciate and know ourselves as persons or individuals and also to make meaning or sense of our world in which we reside. Through the researcher's background as a Ghanaian nurse, sharing similar cultural aspirations as well as other values and experiences with the participants, my understanding of their experiences as type 2 diabetics was improved. The researcher's background as Ghanaian nurse, who has also lived in the rural area of Ghana, who has had enough interactions with these patients in the rural setting formed the basis of his understanding of their experiences. That also helped him to communicate the meanings of their concealed experiences, because as a member of their community, the researcher know what it means to live with a stigmatized condition such as diabetes mellitus which also places lot of strain on the individuals affected. The researcher hopes his interpretation of their experiences may be quite different from a researcher who comes up to carry out this research without any knowledge of such experiences of the participants. The researcher was conscious of the tendency to force his understanding and interpretation as well as perspectives on the experiences of these type 2 diabetics, so the researcher tried as much as possible to illustrate and interpreted the data from their own angle. Heidegger (1976) pointed out that our pre understanding is always with us, and so it is difficult to keep them away as phenomenological researchers and that nothing under the universe can be explored from people without tracing or making reference to the individual's background as well as orientation. On this note, bracketing is impractical and unrealistic because we continually intermingle or interact with our world in which we dwell (Rapport and Wainwright, 2006). In this thesis, the researcher slowly immersed himself in the experiences of patients newly diagnosed with type 2 diabetes, and communicated his understanding and interpretations of their experiences living with the condition.

The next section considers some of the studies using Heideggerian Hermeneutic Phenomenological Approach to Qualitative Research in which bracketing was not possible.

3.6 Some Phenomenological Studies Using Heideggerian Hermeneutic or Interpretive Approach to Qualitative Research

It is interesting to note that some qualitative researchers have employed Heideggerian hermeneutic approach to explore issues in health and nursing in particular, with reference to the fact that the researcher is part of the participant's world, where it is not possible for the researcher to bracket himself and put his assumptions aside. The researcher therefore engages him or herself in a thoughtful practice or reflection (Van Manen, 1990). Examples of such studies include researches done to explore experiences of patients in various situations.

Mwini-Nyaledzigbor and Wright (2011) used Tesch's hermeneutic phenomenological approach to study patients living with HIV/AIDS in Ghana, on misconceptions about HIV infection. They identified HIV infection as a "punishment from God and a spoiled woman's illness". In terms of punishment from God, it was perceived as due to one's bad deeds or behaviour in society hence the person is punished by God. As a "spoiled woman's disease" (Muora), Mwini-Nyaledzigbor and Wright (2011) noted that it is through indecent behaviours such as women going after men and through fornication and adultery that people contract HIV/AIDS. Such women with the HIV/AIDS according to their study are also labeled as "contaminated women" because of the stigma associated with the condition, HIV/AIDS.

Charalambous, in her PhD dissertation in 2008 also used hermeneutic phenomenological approach to qualitative research to investigate the meaning of quality nursing care from the

perspectives of cancer patients and nurses as well as patients' advocates. The reason for the research was the need to address the differences arising from their perceived understandings of the concept of quality nursing care. Such differences in their understanding of the meaning of quality nursing care usually result in negative interactions between patients and nurses as well as between patients' advocates and nurses. Charalambous investigated the "lived experiences" of the research participants to unearth their differences regarding the concept of quality nursing care. The research found that the three categories of participants share common perceptions about the meaning of quality nursing care. The study identified the need to consider and define quality nursing care by bringing together the understandings and perceptions of the three groups, patients, nurses and patients' advocates in order to influence nursing practice.

In another study, Wilson Anthea Maria Elizabeth (2012), also a PhD student, explored experiences of nurses who mentored student nurses, through the use of hermeneutic phenomenological approach. As part of nursing education, nurse mentors play key roles in the preparation of student nurses to take up their professional nursing duties. In an interview approach, the researcher interacted with 12 nurses to know much about their "lived experiences" regarding mentoring of the student nurses at their workplaces. The findings showed that, nurses found mentoring as rewarding and satisfying despite other challenges such as frustration and distressing nature of work place challenges including inadequate resources. The study identified the need to promote workplace learning by supporting both students and nurse mentors to overcome their challenges.

In another study by Evans and Hallet (2007), it was noted that hermeneutic phenomenological approach to qualitative work is a good method to research into issues

associated with nurses' work. They researched into the "meanings of nursing care" for a person who is dying, from the patients' and nurses' point of view. The nurses mentioned that it is pertinent to provide comfort for patients as well as to meet their spiritual needs at the terminal stage of their illnesses. The findings offer us advice from our own colleagues on the kind of care nurses should give to patients who are in the terminal stages of illnesses.

In the previous section, we have looked at some of the studies which used hermeneutic phenomenological approach to research, looking at studies such as Evans and Hallet (2007), Wilson Anthea Maria Elizabeth (2012), Charalambous (2008), and Mwini-Nyaledzigbor and Wright (2011). The subsequent section focuses on critique of hermeneutic research.

3.7 Critique of Hermeneutic Phenomenological Research

Hermeneutic phenomenology holds the view that knowledge is developed based on interpretation of people's lived experiences, in a process whereby the researcher engages himself in a thoughtful reflection. With this in mind, at times one of the drawbacks of hermeneutic approach is the fact that, the findings appear to be untrue and invalid (Rolfe, 2006). The true picture of a phenomenon under investigation can only be achieved when both the participants' and researchers' experiences and perceptions are brought together and interpreted. However, it may be essential for researchers to make sure that they allow the participants' data to communicate to audience or readers what it exactly holds (Draucker, 1999). This is because, the participants are the focus of the study and their lived experiences and perceptions should be upheld and interpreted, and avoid the reflections of researchers in line with their experiences, which help them to interpret participants' experiences and perceptions (Draucker, 1999). In this thesis, the researcher asked permission of the participants to interview them to unearth their experiences living with type 2 diabetes

mellitus, so that his interpretation or analysis will be in line with their perceptions. In addition, the researcher sent transcribed interviews to three participants for their perusal to confirm what they said during the interviews. The researcher has also taken some direct quotes from the data of the participants to represent their experiences as patients living with type 2 diabetes mellitus. This was intended to achieve credibility in this research.

It has also been noted that hermeneutic approach to phenomenological study appears to be biased in the sense that researchers' presumptive ideas and pre-understandings are not put aside but embedded in the study, instead of concentrating on participants' lived experiences. Heidegger, however pointed out that, as information is passed on from one person to another, there is possibility of originality of the information to change (Heidegger, 1962), and in that instance the primary data which has been collected from the participant changes and become a "free floating thesis" (Heidegger, 1962, pp. 60-61).

Hermeneutic phenomenology approach to qualitative research takes too much time of researchers because it involves extensive interviewing as well as analysis, which also places too much pressure on the researchers (Whitehead, 2004). These may also lead to psychological or emotional pressure as a result of the depth of thinking of researcher around the experiences the participants. Successful research may depend on cooperation between researchers and their research participants. In this thesis, the researcher interviewed the research participants and allowed them to talk extensively and freely about their own experiences living with type 2 diabetes mellitus, without coercion. However, at times the researcher had to lead or guide them not directly to make sure that they talk about some important matters. At times, the researcher observed the participants' descriptions and interpretations were so different from what he knew, probably due to the researcher's orientation and background as a professional nurse and also a lecturer in a nursing school

who handle medical nursing courses and continue to have some interactions with patients during his clinical teaching of students in the hospitals in Ghana.

It is equally essential to note that perception plays a key role in understanding of hermeneutic phenomenological findings, as readers may have different explanations to the research findings or the themes which appear (Whitehead, 2004). The readers' interpretations and explanations may be different from what the researchers say, because the readers are also interpreters in their own way. It is also possible to note that individuals' explanations will modify and vary over time as their perspectives and scope grow or advance. The researcher has observed in this thesis that the approach has given us richer understanding of the experiences of the patients newly diagnosed with type 2 diabetes mellitus as range of interpretation brings out the essential meanings of the phenomenon under investigation. The researcher must say that, each individual as a researcher has special background and unique orientation, and therefore the understanding of the researcher and interpretation the researcher offers to the subject under investigation may be associated with the background orientation. That may be the reason why readers also have diverse and different interpretations to what we study. In this thesis, my aim was to explore the coping strategies employed by patients newly diagnosed with type 2 diabetes mellitus. The researcher must say that his background in general as a Ghanaian living with this patients, and his orientation as a professional nurse and a lecturer in the nursing school offered the needed understanding of the lived experiences of the participants.

While both ethnography and grounded theory are essentially qualitative approaches and as such are premised on the assumption that it is possible to 'know the truth' from the subjective accounts of individuals 'in the world', a hermeneutic phenomenological approach as a particular to qualitative research facilitates the emergence and description of a 'true picture'

of coping strategies of newly diagnosed patients with type 2 diabetes mellitus at a hospital in Ghana, in ways that other approaches cannot.

The previous section considered critique of hermeneutic phenomenological research. The next section is about my reflections during this study, sectioned under before the study and after the study.

3.8 My Reflexive Account During the Research Period

In qualitative research, it is imperative for researchers to describe and explain how their personal experiences and values as well as beliefs, preferences or choices and actions are carried through the research process (Mruck and Breuer, 2003). These personal experiences, values and beliefs as well as choices and actions of the researcher define or shape the entire research processes including the choice of methodology, and how the findings may be embodied or structured and represented (Mruck and Breuer, 2003)

Before the study

As a nurse, before this thesis, the researcher had been approached several times to help patients in his previous hospital to guarantee for them to pay their hospital bills as a senior nurse in that hospital by way of going to the accounts office of the hospital to plead on their behalf. As a person, when the researcher succeeded in helping in this way, the researcher felt satisfied and happy at that time. In addition to this experience, at the hospital, the researcher also used to interact with patients including those with diabetes. In these interactions the researcher learnt a lot from the patients with regards to financial difficulties they face, physical problems such as pain and weakness. As a nurse my obligation is to listen to them

and offer advice where possible, but the researcher could not go beyond by giving them money to take care of themselves. As a Christian, one of my values is to support these people through other means such as during worshipping days the researcher ask church congregation to give some donations or gifts to these people when the researcher go back to the hospital on the following days. In many instances, the researcher did his best to help them as a nurse and also as a person. The researcher always felt for them when they began to tell him their problems.

After the Study

Now this qualitative research has actually changed me, it has been an eye opener to me as a nurse, nursing lecturer, and a person. Now as a nurse, the researcher has learnt that living with diabetes goes beyond experiencing clinical manifestations. Patients with diabetes type 2 have lot of challenges which must be understood by nurses at all levels. Following completion of the research the researcher knows that when we are taking care of diabetics, we have to go beyond the physical signs and symptoms but we need to take into consideration the totality of the person and consider all aspects of his or her life. That is why the researcher thinks that, there should be a model that should be used to take care of these people, and I pray that this aim becomes realized.

In addition, the researcher has been equipped in terms of qualitative research. Now the researcher understands the qualitative terms when they are mentioned. Now the researcher knows what goes into qualitative data analysis and the issues associated with qualitative research. Initially, when the researcher was having trouble with the literature chapter and some important concepts in qualitative research, the researcher nearly wept but I prayed to God to come to my rescue. However, there have been lot of challenges in doing PhD especially when the way forward is not clear.

As a person and as a nurse, now my attitude towards these patients will change after having insights into living experiences and how they cope with condition. As a nurse and healthcare provider, the researcher does not need to be judgemental but I have to accept patients the way they are and give them the best of care I can, because this study has let me know what it is to live with type 2 diabetes in Ghana.

Now, the researcher has a dream and this dream is to be able to come out with a care or explanatory model to take care of diabetics in Ghana, because the findings of the thesis have shown me that the care of diabetics in Ghana needs to be done by considering so many factors and not just taking care of their medications without considering other important factors including culture to mention a few.

The next section looks at the research setting and the diabetic clinic of the hospital in particular.

3.9 Research Setting

The study was conducted at a Diabetic Clinic of a hospital in Ghana. The hospital serves as a municipal hospital and has various units which include paediatrics, medical, surgical, emergency, maternity, labour wards, eye clinic, physiotherapy unit, orthopaedic unit, and a diabetic clinic. Other units within the hospital include the outpatient and the primary health care departments.

The decision to choose that particular hospital for this research study was based on the fact most of the research undertaken in Ghana that relates to diabetes has been conducted at the Korle-Bu Hospital, the biggest teaching hospital in Ghana, situated in Accra. In addition, apart from Korle-Bu teaching hospital, similar researches have been done in other big cities where we equally have big hospitals. The researcher had impression that research subject's fatigue might have occurred in these hospitals where patients are regularly used as research

participants. The researcher's decision was therefore to recruit participants from this hospital, so that these patients' voices and experiences are also heard, in which case they would feel proud and valued of being part of a research study. From my experience, in Ghana people become very happy when they are part of a research study especially when it is conducted by health personnel. Public patronage in health programmes in Ghana is high, and that may account for their interest and readiness in taking part in health research as participants. The previous section looked at the research setting.

Now let us consider the research processes by looking at the various sampling strategies such as purposive, convenience, quota, snowballing and theoretical sampling among many others. Convenience sampling approach has been selected for this thesis.

3.10 Research Process

3.10i Sampling Strategy

There are many sampling approaches that are employed for qualitative research studies, usually consisting of small number of participants (Anderson, 2010). This is because detailed and rigorous work is involved in qualitative research including data collection through interviewing, transcribing of recorded data, and analysis and interpretation of data, all of these are arduous work in qualitative research (Anderson, 2010) which takes too much time. In view of this too many participants in qualitative research makes analysis difficult and time consuming. Anderson (2010) notes that sampling size in qualitative research is not calculated however qualitative researchers are supposed to illustrate their sampling by considering their characteristics and their importance to the broader people or population (Anderson, 2010). Anderson, (2010) mention three basic sampling types which are commonly used in qualitative researches. These are purposive, convenience and theoretical sampling approaches

(Anderson, 2010), and that purposive sampling are commonly used in qualitative research. This is because specific persons are usually needed to take part in a particular study based on their unique characteristics, so participants' selection is purposively undertaken so that specific information or data may be obtained from them. This method is also used to "provide maximum variation within a sample" (Anderson, 2010) as participants may be identified, for instance, based on age, sex and other socio-demographic factors as well as using equal representation of sample from the represented groups, for instance recruiting 5 patients from each of the diabetic clinics in a district for a study.

Convenience sampling approach to qualitative research is where the researcher identifies individuals who are readily available or those individuals who are willing to take part in a research study, and it is usually noted for explorative studies (Anderson, 2010), also called accidental or opportunistic sampling technique (Burnard, 2004) because participants are recruited by chance or unplanned. Volunteer or convenience samples are frequently used in nursing research when potential informants may not be known to the researcher or to each other. Placing notices or requesting people with the desired experiences to contact the researcher broadens the potential range of experiences available to the researcher (Anderson, 2010). Volunteer sampling also improves interview quality, because participants are willing and interested in participating in the research. As much as it has the potential to identify available or accessible participants for a study, convenience sampling method may be "biased and unrepresentative of the population in question" (Anderson, 2010) in which case the researcher may be coaxed to oversimplify this small populace (Koerber and Michael, 2008).

Theoretical sampling is a technique used to recruit participants based on new insights emerging from an earlier study which guides the researcher to invite new participants for a study (Anderson, 2010). This approach to sampling has been recommended for recruiting participants for grounded theory research. This is because, in theoretical sampling,

participants are selected based on emerging concepts (Creswell, 2009). This is similar to the definition given by Andersom (2010) as theoretical sampling are important in situations when new participants are recruited to give information or data on a particular phenomenon is studied.

Koerber and Michael (2008) similarly presented three major types of qualitative sampling approaches like what Anderson presented in 2010. These are convenience, purposive and theoretical sampling methods (Koerber and Michael, 2008).

Koerber and Michael (2008) defined convenience sampling method as a technique in which “participants who are readily available and easy to contact” are recruited for qualitative research. Koerber and Michael (2008) and Anderson' (2010) emphasis on convenience method of sampling whereby the researcher employs participants who are readily available to the researcher. However it is argued that the term “readily available is a common term”, because in some cases participants may be more available or accessible than other times. This suggests that some amount of effort may be required to find participants in this case for the research. It is only Koerber and Michael, (2008) who reported this issue of the extent to which participants are available and readily available to be recruited in convenience sampling method but not Anderson (2010). However, the two of them mentioned that the three most common methods for sampling are convenience, purposive sampling and theoretical sampling. In addition, Anderson (2010) makes a distinction from Koerber and Michael (2008) by saying that convenience method of sampling is also called accidental or opportunistic sampling technique (Burnard, 2004) because participants are employed for the study by chance or unintentional. However, Higginbottom (2004) has pointed out that a directly connected expression or word, to convenience sampling is “snowball” sampling approach in which the researcher commences the data collection with a small sample of individual participants who are readily accessible to be contacted. The number of participants

is then increased when participants who have already been engaged are requested to recommend other equally potential participants for the same study (Higginbottom, 2004; Koerber and Michael, 2008).

Purposive sampling is a process when the “researcher looks for participants with certain traits or qualities” (Koerber and Michael, 2008), and that the selection of the participants is based on the research aim. This is because, the researcher tries to look for participants who have requisite qualities as well as values required to be part of the study. In that case values and perspectives of participants are required. One disadvantage of purposive sampling is the likelihood of the researchers themselves to craft their own sample to get the results they intend to have for themselves (Koerber and Michael, 2008). There is also possibility to select sample that is not “diverse enough to represent variations known to exist in the population or phenomenon being studied” (Koerber and Michael, 2008). As compared to Anderson (2010) and Burnard (2004), the three authors Koerber and Michael (2008), Anderson (2010) and Burnard (2004) are all talking about one issue, where the aim of purposive sampling is to look for participants with specific characteristics to be selected for the study. However, in some cases it has been noted that there is confusion between our understanding of purposive sampling and theoretical sampling (Tuckett, 2004). There is some kind of resemblance between the two as each of them defines the situation in which the participants is selected, as in both cases recruitment is based on participants who have certain knowledge or characters who are recruited to answer some specific questions. Nevertheless it has been pointed out that theoretical sampling is purposely designed for grounded theory where it is intended to identify people who are required to give information on specific issues as the research is ongoing (Koerber and Michael, 2008). Burnard (2004) makes a note of the quota sampling method whereby the researcher’s aim is to come up with a sample size based on the proportion of groups or strata of the total population being studied. For instance how many

female and male diabetics to be recruited for the study and so each group is assigned a quota. However, the term proportional quota sampling was used by Hardon, Hodgkin and Fresle (2004) to represent quota sampling approach as we have noted above where groups are assigned number of participants to be studied. This allows fairness in distribution of number of sample size to each group based on total number of population.

In the previous section we have examine the major sampling techniques used in qualitative research including convenience, purposive, theoretical, snowballing and quota sampling methods, centering on how they are used and some of their strengths and weaknesses. The subsequent section focuses on why some of the sample approaches above were not employed by the researcher for the current thesis with rationale.

In this thesis, convenience sampling method was chosen to recruit participants as convenience sampling approach to qualitative research helps identifies individuals who are easily accessible and able to be contacted them to take part in a research study. At the diabetics' clinic, it was possible for the researcher to get their addresses and telephone numbers to be contacted for the study. At the same time it was also possible for the researcher to get them at the clinic during reviews with their nurses and doctors. In the literature review in the chapter 2, most of the studies on coping were done in either Europe or the USA where there are advancement in electronic registration for patients to be enrolled for research studies, but these methods are not applicable in Ghana as most places are not covered with internet facilities to augment the process of registration of patients for research. In addition, at the hospital it was easy to contact patients by way of placing notices on the notice boards near the hospital entrance to invite diabetics as well to contact the researcher for the study. Snowballing method for recruitment of participants was not appropriate in this instance due to ethical issues as some patients may not want other people to know that they are diabetics,

so the researcher declined to use it. Theoretical sampling was not used for participants' selection as there was no previously ongoing research where new participants were needed to give information due to an emerging issue. With respect to purposive sampling, there was likelihood to recruit sample that was not "diverse enough to represent variations known to exist in the population or phenomenon being studied" (Koerber and Michael, 2008) and so the researcher declined to employ purposive sampling for the thesis.

We have so far debated on purposive, convenience, quota, snowballing and theoretical sampling among many others. At the end of the debate, convenience sampling has been identified as appropriate for this current thesis. The next section considers specific processes which were followed to recruit the participants.

3.10ii The Sample

In this thesis a convenience or volunteer sample of fifty four (54) newly diagnosed patients with type 2 diabetes who attended the outpatient department at the diabetic clinic, on regular basis at a hospital in Ghana were identified as eligible for inclusion in the thesis. Letters were sent to each patient inviting them to take part in the thesis (Appendix B in Volume 2). Being newly diagnosed ensured that the participant had the opportunity to remember all their initial reaction to the condition when it was diagnosed in the hospital. Forty two (42) patients responded to the letter and were willing to tell about their coping strategies and so were eligible for inclusion in the thesis. Type 2 diabetic patients who had been diagnosed by a doctor for a minimum of 3 months at the hospital and were willing to tell about their coping methods or strategies with the condition were eligible for inclusion in the thesis. Language spoken by a patient was not considered an inclusion criterion because the researcher could speak fluently in any of the major languages of the people in this part of Ghana, either Brong

Twi, Asante Twi, Fante Twi or Akuapem Twi and English. An added advantage is that about ninety five percent (95%) of Ghanaians can speak the Twi Language. Some of the participants could speak the English language. Data saturation was reached when twenty seven (27) interviews were conducted.

Each patient received a letter that was personally addressed to her/him (Appendix B in Volume 2). Their names and addresses were obtained from the attendance register at the diabetic clinic in the hospital. The purpose of the thesis was explained in the letter and an invitation extended to each participant to attend one of two information meetings at the hospital where detailed information about the purpose and objectives of the thesis were given. The letter explained that participants would be asked to talk about how they `cope` with the diabetes and how they might be assisted to cope effectively with problems associated with their diabetes. The researcher booked appointments for home visits to further explain the thesis with the participants. In addition to personally addressed letters and follow up home visits to check understanding, public notices were put up in the hospital in the diabetic clinic to invite type 2 diabetic patients to contact the researcher if they wanted to take part in the thesis (Appendix B in Volume 2). Those who could not attend the meeting, but were willing to take part arrived at the researcher's office in the hospital, where the thesis was subsequently explained. Participants were informed that the researcher was interested to know of the coping strategies currently employed by diabetic patients as a way of dealing with problems associated with diabetes. Participants were also informed that the thesis findings could be used to help nurses and other health care workers to have a better understanding of how to care for diabetic patients in general and also to establish appropriate therapeutic relationships with them. It was explained that the interviews would be recorded, transcribed verbatim (word for word) and that they were free to opt out at any point should they wish to. A consent form was offered for signing by participants, once the researcher was

assured that each participant fully understood the purpose and process of taking part in the research. If the potential participant read the information letter and signed the consent form (Appendix C in Volume 2), she/he was invited for interview. In all, the twenty seven (27) type 2 diabetic patients who participated in this thesis were all Ghanaians.

Now let us examine the inclusion and exclusion criteria.

3.10iii Inclusion Criteria

In this study, type 2 diabetic patients whose diagnosis had been confirmed within a period of three months by a doctor at a hospital in Ghana who were willing to tell about their coping strategies were eligible for inclusion in the thesis.

3.10iv Exclusion Criteria

Those excluded in the thesis were type 2 diabetics who attended the diabetic clinic during the period of data collection but were admitted to the hospital because they became seriously ill. Type 2 diabetic patients who attended the clinic but were not living in the catchments area of the hospital were also excluded from the thesis, for reasons that interviewing patients outside this area was beyond the resources available for this thesis.

The section below now examines data collection through interviewing techniques and finding out which technique is appropriate.

3.11 Data Collection through Interviewing

In a research activity, data may be obtained from interviews, participant observation, diaries as well as samples of human behaviour (Britten, 2005). In most qualitative research studies, the use of interviews and focus group discussions seem to dominate other methods of data collection such as participant observation and use of diaries (Britten, 2005). The main aim of interview is to explore “what people have in mind” regarding their experiences and perceptions (Britten, 2005), and also to explore behaviours which are not easily visible and perceptible from the participant’s actions and inactions (Britten, 2005).

There are various types of interviews which are equally appropriate for qualitative research projects. These are focus group, unstructured, semi-structured and structured interviews (Green and Thorogood, 2009). However, Fontana and Prokos (2007) mentions three types of interviews which are structured, semi-structured as well as unstructured interview guides but did not mention focus group discussion as an interview method. The difference between them is the level of direction of the conversation which is controlled by the interviewer or the researcher (Green and Thorogood, 2009).

Structured interviews guide according to Green and Thorogood (2009) intends to make the participant pick answers from a list of items. As the names implies a standardize way of asking questions is what structured interview guide is all about. One advantage of this type of interview technique is that, it makes the conversation orderly as questions are already prepared, which is focused. A disadvantage is that, it may not make room for probing or different questions to be asked outside the main domain. Apart from Green and Thorogood (2009), the other entire authors including Stuckey (2013), Letts et al., (2007), DiCicco-Bloom and Crabtree (2006), Fontana and Prokos (2007) have also pointed out structured interview as

having fixed question to be answered by research participants. Because of this feature, the researcher did not choose it for the current thesis.

An interview conducted with participants in a group form is the focus group discussion, in which many participants are grouped, and share their experiences on a particular phenomenon or a particular issue of concern (Stuckey, 2013). Focus group discussion as a form of interview has also been mentioned by Letts et al., (2007), which is the same as what Stuckey (2013) has noted. According to Letts et al., (2007), focus group discussion is aimed at interviewing a group of individual participants on a particular topic of interest. Both of the authors, Stuckey (2013) and Letts et al., (2007) are saying that in focus group discussion, open-ended questions are used. Letts et al., (2007) however focused on both advantages and disadvantages of focus group discussion. As individuals are required to talk during discussion, focus group as a form of interview actually generates discussion as individual are influenced to talk by their colleagues. This method is also employed when varied answers are required from the members of the focus group within a very short time and the researcher also tries to observe what actually happens. The difference over here is that Stuckey (2013) did not mention these advantages and disadvantages. According to Letts et al., (2007), disadvantages of focus group discussion is that some members of the group can talk too much and disproportionately consume all the time for the interviews. Others may not talk at all but become just observers (Letts et al., 2007). The researcher becomes a facilitator, who is supposed to be knowledgeable and skilful in the interview in order to direct proper question to the participants.

The researcher then listens and learns from the research participants. In this current thesis, focus group discussion was not employed for data collection due to the fact that participants' privacy was to be compromised as each participant told his/her story openly. The open nature of focus group discussion was likely to prevent in-depth investigation of participants' lived

experiences of coping and living with type 2 diabetes mellitus. Additionally, the researcher had impression that it was not ethically appropriate and feasible for female and male type 2 diabetics newly diagnosed patients to group together and talk about their private issues associated with their experiences living with the condition. Even for same sex, it would have been unethically prudent for them to meet and tell about their respective experiences living and coping with type 2 diabetes.

In many healthcare research studies, in-depth interviews are mostly employed to investigate people's experiences in terms of health issues and healthcare system in general. Individual in-depth interviews actually allow the researcher to explore experiences and perceptions, as well as events as experienced by people (DiCicco-Bloom and Crabtree, 2006). In this thesis, individual in-depth interview was employed to collect data. This allowed the type 2 diabetics to openly communicate their experiences of coping. Individual in-depth interview method also allowed the researcher to explore deeply participants' personal experiences and coping with diabetes mellitus. The main purpose of individual in-depth interview in this research was to attempt to collect extensive and different data, and also to give the newly diagnosed type 2 diabetics the opportunity to tell and describe their experiences as lived in their own world. Individual in-depth interviews was also intended to offer the participants the opportunity to tell their story using their own words, so that they could tell what they thought to be crucial and relevant to them (DiCicco-Bloom and Crabtree, 2006).

Data collection for this study was influenced or shaped by the objectives and research questions of this study, so as to ensure that the participants tell about their experiences living with diabetes mellitus type 2. Participants were encouraged to tell their stories regarding their experiences living with diabetes.

Though, the researcher thought about the need to use interviews for data collection, he was torn between the type of interview to be employed for this thesis as both unstructured and

semi-structured interview are equally good for phenomenological approach to qualitative research studies (Stuckey, 2013).

In unstructured interview, no particular order is followed. It is an ordinary interaction between the researcher and the research participants which seem to be more of a conversation between the two, the researcher and the participant (DiCicco-Bloom and Crabtree, 2006). In this type of interview format, interview guide is not needed and the interview process is flexible as the participant can talk openly without restrictions. In this way, the researcher attempts to ask questions which stimulate the participants to talk openly and express their views on issues raised by the researcher (DiCicco-Bloom and Crabtree, 2006). In unstructured interview, the researcher should be a good interviewer with excellent communication skills, and should be able to listen carefully and attentively to the participants in order to follow all relevant issues raised by the participant, so that accurate probing questions are asked for clarification (Stuckey, 2013), due to the fact that in some situations, it is likely that the participants may be giving irrelevant information. In some cases, irrelevant information from the participants may pose difficulties especially during data coding and analysis. The merits of unstructured interviews rest on the fact that, it is flexible and able to identify information which in real sense may not be uncovered by structured and semi-structured interview guides (Stuckey, 2013). However, the researcher did not employ unstructured interview as the researcher thought that the participants would need to be focused in order to give relevant information relating to this thesis. Also as a novice researcher, not so experienced as such, it would have been somehow not easy for me to interact with the research participants using unstructured interviews.

Fontana and Prokos (2007) also described unstructured interviews and noted that, it is a form of interview in which no particular order is followed which is similar to what DiCicco-Bloom and Crabtree (2006) have acknowledged. According to Fontana and Prokos (2007) is a kind

of conversation in which the interviewees can ask lot of questions and so it tends to take no formal form, but the interviewer may ask some questions and in some cases this can turn into arguments. No meaningful outcomes may be generated from unstructured interview as the participants themselves as well as the researcher or the facilitator can at times introduce different topic into the conversation away from the primary interview topic (Fontana and Prokos, 2007). However according to Lofland et al., (2006), in order to obtain useful data from unstructured interviews the interviews should be organised on repeated times to be familiar of what to be asked and discussed.

Both Stuckey (2013) and Fontana and Prokos (2007) agree that it is likely that the participants may be giving irrelevant information. This is because there is no guide for the researcher to direct questions to the participants and questions may be disjointed which may also influence the nature of responses from the research participants. Nevertheless, they did not offer any measures about how to overcome this problem as it has been suggested by Lofland et al., (2006), where it is important to organise interviews on repeated times to become conversant with the type of questions to be asked.

3.12 Semi-Structured Interview Guide

In qualitative research, semi-structured interview guides are mostly employed for interviewing. In this type of interview, the researcher prepares the questions for topic areas to be covered, but the responses given by the research participant determines the way or direction the “interview conversation” takes (Stuckey, 2013). In other words, major questions are asked during the interview by the researcher, but as the “interview conversation” goes on, new probing questions are asked based on the discussion and responses from the research participants (Stuckey, 2013). In this type of interview, the researcher prepares a list of key

questions covering possible issues to be explored, in the form of open ended questions, which stimulate and allow the research participants to talk freely and express their views on issues raised during discussion in a very conducive and relaxed situation (Fontana and Prokos (2007). For instance a question such as “Tell me how you have been coping with type 2 diabetes since your diagnosis? The participant will narrate his or her story and probe can then follow, for instance “You mentioned that.....” Throw more light on that and give me examples”. Interview questions which are developed should avoid technical terms, but the communication between the researcher and the research participants is encouraged when simple terms are used by the researcher which keeps the participants inside the “interview arena” (DiCicco-Bloom and Crabtree, 2006).

Fontana and Prokos (2007) also says that semi-structured interview guide includes a set of questions which have already been prepared by the researcher to base their conversation on. The questions developed by the researcher are in most cases open ended questions and probe questions usually follow main question after the primary question has been discussed thoroughly (Fontana and Prokos, 2007). There is the need for interviewers to have listening ear in order to ask follow up questions, the probes in course of the conversation.

DiCicco-Bloom and Crabtree, (2006), Fontana and Prokos (2007) as well as Stuckey (2013) noted that in semi-structured interview guide, the researcher gets ready list of key questions on possible issues to be investigated, in a form of open ended questions, which arouse and allows the research participants to talk freely and express their views on issues raised such as experiences of living with a chronic disease. All the three researchers, DiCicco-Bloom and Crabtree (2006), Fontana and Prokos (2007) as well as Stuckey (2013) agree that the type of questions asked directs the conversation between the researcher and the participant. Just as all the authors in other interview have stressed, there is the need for the researcher to have a listening skills in order to follow the interview process, so that probing questioning is

enhanced. There is a connection here, as all the three interview techniques we have discussed have identified that there is a need to have a listening ear in order to do probing to elicit rich and adequate information. However the term phenomenological interviewing has been described as another kind of interview with a purpose of exploring in-depth description of experiences of individuals or group of people. Here, the tenet of phenomenological interview is that, open ended questions are asked and probing of questions also ensured (Fontana and Prokos, 2007). Just as we have in the semi-structured interview guide, the participants in phenomenological interview should be knowledgeable about phenomenon to be investigated. It is also noted that the interviewer and interviewee are engaged in conversation of a purpose in both semi-structured interview and phenomenological interview (Fontana and Prokos, 2007). Hence the two, semi-structure and phenomenological interview have similar features for operation, to be able to explore “lived experiences” of group of people.

In this current thesis, semi-structured interview guide was employed for data collection. Semi-structured interview guide allowed the researcher to ask open ended questions in order to focus discussion on relevant issues pertinent to this thesis. At the same time, this format allowed the research participants to openly and freely discuss issues in their own opinion on experiences they felt were important to be uncovered (Stuckey, 2013). In semi-structured interview format, more questions can be asked, and also allows probing based on the issues raised by the participants, which may need clarification and further discussion (Stuckey, 2013; Corbetta, 2003). In principle, semi-structured interview guide allows adequate flexibility on the part of the research participant to determine the rhythm, pace and flow of information (DiCicco-Bloom and Crabtree, 2006).

The previous section examined the various interview techniques for qualitative research. Now the subsequent section looks at specifically what took place during data collection period.

In each of the interviews, the researcher made it clear to them the purpose of the thesis. The researcher assured them of confidentiality of what they would say and privacy was also provided. The researcher told them that the research was intended to find out how they were coping as newly diagnosed patients with type 2 diabetes mellitus, so the findings would give nurses and other healthcare professionals a better understanding of how to care for them. The researcher told them that, what they tell me will not have any negative impact on my interaction with them following the interviews. In the process of research studies, researchers and interviewers have been admonished not to be judgemental and directive but endeavour to encourage participants which may stimulate them to express and communicate freely about their experiences how it is lived (Wengraf, 2001). The participants should also be encouraged to tell all their experiences and be assured of not being reprimanded due to the information they offer to researchers (Wengraf, 2001).

In addition, interview with the participants did not follow similar pattern and progression because their responses warranted different questions and probes. The researcher tried as much as possible not to interrupt with their responses but to listen to them attentively as they talked about their experiences of living with diabetes and coping as well as other relevant issues. Through attentive listening, the researcher wrote down quickly responses or issues of concern in my field note book during interviews. These were issues which needed to be probed further for clarification. Writing them down in the field note book during the interviews gave me the opportunity to revisit such pertinent issues in course of the interview process for clarification. This offered the participants the time to expand their responses fully.

In almost all the interviews, the researcher tried nodding his head and also used “silent voice” to mention word such as “yeah”, “yeah”, “yeah”, “yeah”, “yeah” to encourage them talk fluently on pertinent issues which reflected their experiences of living with the condition. However, in some situations, when questions were asked, responses were not forthcoming, in

which case the researcher had to use specific examples to show them what the researcher meant, the relevance of being part of the research participant's world, where total bracketing was not possible for me as a hermeneutic phenomenological researcher (Van Manen, 1990).

The researcher used open ended questioning in order to get as much as needed and detailed information on their experiences of coping with type 2 diabetes.

The researcher also tried to examine the information being given during interviews in order to note areas which needed clarification. In line with this, the researcher also reflected over the data collection processes and identified areas which required careful and extensive exploration to make sure that relevant areas of the phenomenon under study are all covered during the interview.

From the Heideggerian perspective, phenomenological research defines the location of the researcher as part of the participant throughout the research process (Kvale, 2007). In fact, the researcher played an important role in the data collection process as the researcher played an "insider role" as a Ghanaian, interviewing fellow Ghanaians who have been diagnosed with type 2 diabetes, also as a nurse who has had interactions with diabetics, and my background as a nursing lecturer in a school of nursing in Ghana. These qualities helped the researcher to do extensive interviews with the research participants, helped me to understand what I was told and also during data analysis and interpretation. Generally, the researcher guided the discussions based on the major questions he asked, and subsequently used probes to explore much more extensively. However, leading questions were only asked in order to get specific information or when information was not forthcoming, and also to clarify information on issues which were put across during the interview process (Kvale, 2007).

As already noted above, in this research data were collected by interviewing participants. The interview consisted of guiding questions with underlying prompting questions, which were used if information was not forthcoming (Appendix A in Volume 2).

Interviews were structured within three discrete parts (Appendix A in Volume 2). Part 'A' consisted of a short socio-demographic questionnaire (gender, age, marital status, religion, academic and professional qualifications). In part 'B' participants were asked to describe the nature of their work (usual activities including occupation, leisure activities, and hobby). In part 'C' participants were asked to tell of "their personal experiences with the diabetes as a disease condition and how they cope with it.

Explanations were given about the thesis. For example, participants were told the thesis was being undertaken for academic purposes and what they said would be treated in the strictest confidence. All the informants were given written and verbal information about the thesis prior to signing consent forms. The thesis participants were interviewed at a place of their choice, at a time that was convenient for the informant, that is, any place that was acceptable and comfortable for the participants. For the most part, twenty four (24) interviews took place in the researcher's office at the hospital, with three (3) interviews occurring in the homes of the participants. Rapport was established at the beginning of each interview so that rich information could be obtained. The initial questions on socio-demographic issues and the nature of participants work were asked to put the participants at ease as much as for the importance of this information to contextualise the thesis. Participants were then asked to describe their experiences of being diagnosed with and living with diabetes mellitus. These questions were then followed by asking participants to describe how they cope with the condition. Participants were prompted at this point to elaborate or 'tell more' of their experiences and coping methods in order to achieve as rich a description aspect of their experiences and 'ways of coping' as possible.

Interviews continued until no new information was forthcoming (that is, data were saturated). It was anticipated at the beginning of the interviews that saturation would occur when 10 to 12 participants had been interviewed. However, in all, twenty seven (27) patients were interviewed. The conversation between participants and the researcher were audio taped and transcribed verbatim.

Participants were advised that only the researcher and research supervisors would have access to the audio taped materials. The use of a tape recorder ensured that attention could be given unreservedly to the informants, thus guaranteeing accuracy of data collection, maximising the flow of information and allowing the researcher to return to the raw data at a later date for verification. Participants were interviewed in the order that they signed the consent form in the researcher's office or in their homes, with interviews lasting approximately forty-five minutes to one hour. The researcher envisaged having to conduct a second interview should this be needed to clarify or expand information provided by particular respondents. It subsequently became necessary on two (2) occasions to conduct follow up interviews, which lasted the same length of time, but which took place three (3) weeks after the first interview. During the interviews, the researcher respected the cultural orientation, beliefs and values as well as traditions of the research participants. Participants who wanted to pray before the interviews were allowed to do so in accordance with their faith. As the researcher has already pointed out, Ghanaians are very religious and tend to pray to God at the commencement of every event. In view of this, some of them prayed to God to ensure positive encounter with the researcher during the entire interview process. In their homes, the researcher was given water to drink before interviews were commenced to signify being welcomed to their home. In a situation, where either the husband or the wife wanted to be with one another during interview, permission was granted. For example, a male Moslem participant asked his wife to be present during the interview. In all 54 patients newly diagnosed with type 2 diabetes were

invited to take part in the research but 42 responded to take part in the research. However, 27 participants were interviewed and saturation occurred.

Interviews were conducted in both Twi (local Ghanaian language) and English. Participants who could not speak English were interviewed in Twi, which was later translated into English by the researcher. Confidentiality was assured for all respondents and reiterated several times during the interviews. The researcher did the interviews himself without research assistants and took the opportunity to ask participants to explain to him words in Twi and English they had used and the researcher could not hear or understand well. This made translation from Twi to English very easy and simple for me as I had previously asked about them. For this reason, the researcher did not engage any professional translator to translate from Twi to English in this thesis. The researcher did it himself to ensure consistency in translation from Twi to English for all interviews as the researcher can speak all the four Akan Twi languages of the people in this area. The possibility for another person, even a professional translator to miss some words is very high, especially when they are not part of the interview processes. As a researcher I remember that the extensive interviews and probes I did for words and issue or sentences I could not hear well continued to echo in my ears even after the interviews and this helped me a lot during transcribing of tapes. From my experience as a researcher, re-echoing of words and gestures of research participants helps a great deal during analysis of data. This is only possible when the researcher has done the interviews himself without the help of others. In all, data collection lasted for three (3) months, from August to October 2009.

3.13 Pilot Study

The researcher conducted two (2) pilot interviews with extended family members who incidentally have type 2 diabetes mellitus. In Ghana, we practice extended family system and so in times of need members are ready to support. The researcher has already pointed out that Ghanaians value health research and individuals, who are approached for some reasons to help in one way or the other, offer the needed help. Each person in the family is another one's helper due to strong social bonds, so ethically family members who were type 2 diabetic when approached to be part of the piloting did not turn me down on my request. They were informed that the piloting was to identify any ambiguities in the interview guide and to address them before the main interviews. And as family members the researcher enjoyed the needed cooperation from them. However, the findings from the analysis of the two (2) pilot interviews were not included as part of the main thesis. The pilot interviews were useful in refining and further developing the interview guide, and occurred concurrently with the literature review, that is, both literature and pilot interviewing contributed to the final interview guide. The researcher shared the pilot interviews findings and analysis with the supervisory team for additional comments.

As the researcher has already pointed out in this thesis that, his motivation for this thesis was based on his interactions with diabetics when he was a practicing nurse. The researcher observed the frustrations they go through living with diabetes mellitus. We have noted the challenges associated with their condition and throughout the literature review, the researcher identified documented coping strategies of people with chronic diseases such as diabetes mellitus. The researcher also read about people's experiences living with diabetes mellitus elsewhere outside Ghana and these positioned him well to be able to understand newly diagnosed patients with type 2 diabetes. These served as impetus for him to develop the interview guide as well as the research questions which centred on experiences of patients

newly diagnosed with type 2 diabetes, their challenges as well as their coping methods used in managing the condition and other related issues of interest.

3.14 Field notes

Field notes were documented during the interviews. The field notes were written as observational and personal notes of circumstances and events around the interviewing processes throughout the thesis. For example, a participant approached me after the interview asking me to give him money to feed the family and to buy medication, because he had no money on that day. The researcher had earlier explained to the participants that the research was for academic purpose and that participating in it was voluntary and would not attract any compensation. However, considering the unique problem of the participant at that particular time, the researcher gave a token amount of money to feed the family and secure medication which was prescribed for him. The participant was happy, however his request was after the interview so this might have not influenced his responses to the interview questions.

3.14i Observation/ Personal Notes

These were descriptions of events observed and experienced during the interviews and were written in a personal diary. These centred on the minimal interruptions (noise) encountered with family members of the respondents during three (3) interviews, which were conducted in the homes of the participants. This extraneous noise did not affect the quality of the interviews, which were halted briefly while the noise was contained.

The researcher also made notes during interviews, which were used to remind himself as the researcher to stay on track and to remind himself areas the researcher needed to revisit to ask questions as probes. This was the methodological `style` the researcher used to remind

himself for follow up questions in the interviewing process, within the context of the research that is, phenomenological. These notes served to remind the researcher of how to `stay on track` during interview process. Field notes were subsequently kept and constantly compared throughout the process of data analysis.

The next section is about data analysis procedures being considered and at the end Creswell (1998) was chosen with rationale.

3.15 Data Analysis

Data analysis is a “systematic organization and synthesis of research data and testing of research hypothesis using the data” Polit and Beck, (2005). According to Polit and Beck (2005), there are different types of approaches to do phenomenological data analysis. Some researchers such as Collaizi, Giorgi and Van Kaam according to Reiners (2012) put together three main approaches for the analysis of data. Reiners (2012) points out that all the three methods for data analysis provided by Collaizi, Giorgi and Van Kaam portray the meaning of an experience as lived by people. In this way, the researchers look for meanings and patterns associated with specific experiences. According to Reiners (2012), the researcher returns to the participants to confirm the findings, a concept he used the term validation of findings to explain, according to Collaizi’s perspective. However, Giorgi’s approach does not consider validation by the research respondents (Reiners, 2012), as he did not consider it appropriate to go back to the participants for validation or to see “external judges” for confirmation of results or findings. However, Van Kaam’s method of data analysis acknowledges the importance of “intersubjectivity” to be authenticated through proficient judges (Reiners, 2012).

According to Polit and Beck (2005), another school of thought for the analysis of research data in phenomenological sense is the “Utrecht, the Dutch method” which makes use of both description and interpretation during data analysis, which is usually used for analysis of experiences as live by people. Van Manen employs this approach to make out and interpret the meaning of an experience or a phenomenon (Polit and Beck, 2005). Three approaches under this school of thought are “holistic approach” is the point where the researcher goes through the text in its entirety, “the selective approach” in which the researcher takes out the important components or statements or phrases or sentences. The final stage is the “detailed approach” where the “researcher analyses every sentence” (Polit and Beck, 2005). At the end of it, when themes are found, the researcher goes through reflection and goes back to the research participants for confirmation or validation.

The comparative analysis of the two studies by Reiners (2012) and Polit and Beck, (2005) indicate that, there are some similarities in the schools of thought propounded by Collaizi, Giorgi and Van Kaam on one hand (Reiners, 2012) and Van Manen on the other hand (Polit and Beck, 2005). The two schools of thought agree on one central point in terms of critical examination of the data that has been collected from research participants in order to identify meanings and patterns associated with phenomenon or experiences being studied. They also agree on description of meanings identified during the analysis of the lived experiences of people. However, it is only Polit and Beck (2005) who reported that according to Van Manen approach, every sentence is read and analysed by the researcher, which Reiners (2012) did not report on, but the irony is that looking for meanings and patterns as well as doing description of meanings cannot be done without examining each sentence. This is a gap which none of the researchers commented on. The two studies, Reiners (2012) and Polit and Beck (2005) however noted the need to return to the research participants for validation of results.

In addition to our discussion of possible or available data analysis approaches, Lavery (2003) mentioned Heidegger's interpretive or hermeneutic approach to data analysis in which the concept of hermeneutic circle is significant. This is because, in hermeneutic circle there is repeated checks or review and breakdown or analysis between fraction and the entirety of the text through "reading, reflective writing and interpretation" of data (Lavery, 2003). It is equally imperative to note that the basic principle of hermeneutic interpretive phenomenology is that researchers cannot isolate themselves from the meanings taken out from the text as they are part of the participants' world. The researcher therefore becomes part of the experience or the phenomenon been studied, and presumptive thoughts of the researcher are not bracketed, due to intersubjectivity (Polit and Beck, 2005).

As compared to Reiners (2012) and Polit and Beck, (2005), the use of hermeneutic circle in the data analysis approach by Lavery (2003), is similar to the process of reading through the raw data to get meanings and patterns of the phenomenon being studied. Through hermeneutic circle by way of "reading and going through reflective writing and doing interpretation" is similar to the processes involved in Collaizi, Giorgi and Van Kaam's perspectives on data analysis where they portray the meaning of experiences of people as lived by them (Reiners, 2012). It is also similar to the processes used in data analysis in Van Manen's perspective Polit and Beck, (2005) where "holistic approach" is the stage where the researcher examines the text in its totality, "the selective approach" in which the researcher extracts significant statements and "detailed approach" where the "researcher analyses every sentence" from each participant (Polit and Beck, 2005).

The steps the researcher has discussed up there with regards to data analysis procedure are revolving around on one major issue, thus the need to read the data repeatedly and identify what the data contains in terms of meaning of participants' experiences. Their assertions as

the researcher has described above are also similar to the seven stages of data analysis by Creswell (2012) who considered;

1) the need to “read all the text” as the initial stage during data analysis stage, so that researchers can understand the data in its totality in order to get both the “big and little mental picture” of what is being said (Creswell, 2012). The researcher during this process writes on the margins of the paper showing what is contained in the data, the meanings as he reads along.

2) to “develop a list of all codes”, where by the “little picture” now designated as codes, or concepts or initial ideas as they emerge.

3) “codes the data”, where the coding activities continue and new list of codes is added to previous ones through a process of marking and circling of key sentences, word and statements as well as phrases.

4) to “review the codes and coding”. This is where the researcher looks at data carefully as the codes increase and makes an attempt to put unimportant information aside in order to reduce the list of codes.

5) to “record the data” where the coding has to be redone as the number of codes is lowered and the list goes down.

6) to “develop themes” in which themes are developed from the codes or concepts that were formed from the entire data and

7) to “develop thematic relationships”. This is where connections between themes are developed to identify linkages between themes, subthemes and concepts (Creswell, 2012).

Through this concept mapping, we are able to identify which themes support each other (Creswell, 2012). These lessons we learnt from Creswell (2012) data analysis processes are similar to those that we have discussed above such as Collaizi, Giorgi and Van Kaam’s

(Reiners, 2012), Van Manen (Polit and Beck, 2005) and (Laverty, 2003) as all of them agree on central tenet where the frequent reading through the data is aimed at the researcher immersing himself into the data to become familiar with it and be able to bring out the meanings of the phenomenon being examined. However, other studies such as Reiners (2012) and Polit and Beck (2005) as well as (Laverty, 2003) failed to mention that there is connection between themes and concepts that are developed from the data analysis. They differ on steps of data analysis but the ultimate aims are to get to the common findings but Creswell (2012) goes further to identify further links between the findings.

Similarly, Creswell (1998) also outlined his data analysis approach to qualitative research similar to data analysis by Creswell (2012). Creswell (1998) data analysis method takes into consideration the following steps.

These are: In the first stage, verbatim transcribed data from the research participants are read several times to get some ideas or sense of the whole, which are noted down as they come to the mind. That is followed by the second stage where, sentences and statements, words and phrases from the research participants which describe dimensions of the phenomenon under study were taken from each transcript. In the third phase, meanings are put together from the significant statements. In the fourth stage, ideas from the data are developed into research themes, out of which theme clusters were developed and finally theme categories are evolved. On the fifth stage, findings are represented in rich descriptive formats to portray the phenomenon under investigation from informants' lived experiences or point of view and lastly, according to Creswell's 1998 model of data analysis, confirmation or validation of research findings is sought from research participants to be sure that their lived experiences have been presented. His position on the need to take the findings back to the participants for confirmation or validation is similar to what Reiners (2012) acknowledged as the position of Collaizi's but the idea is rejected in Giorgi's point of view (Reiners, 2012). Creswell (2012)

did not mention the need to return to the research participants for validation of findings; however both of Creswell (1998, 2012) are agree on the idea of constant reading through the data to come up with sense of meanings of experiences as lived by people.

In summary, the previous section examined various approaches used in qualitative data analysis, specifically looking at Reiners (2012) in terms of processes used by Collaizi, Giorgi and Van Kaam as well as mode of analysis presented by Polit and Beck (2005). The central theme from the authors show that constant reading through the data is the major step among many other steps needed to be able to come out with findings in qualitative research, but there is contention as to whether the findings should be shown to the research participants or other people for validation or confirmation.

The next section examines the reasons for the choice of Creswell (1998) data analysis approach for this thesis.

It is generally recognized that there are no straightforward rules that guide the analysis of qualitative data when compared with quantitative data (Bryman and Bell, 2011). As a novice researcher, I was torn between lots of qualitative approaches to data analysis. However, there are approaches that could be employed. In this thesis, the method of data analysis described by Creswell (1998) served as a framework and was utilized to provide a rich description of the essential structure of the phenomenon. As compared with Creswell, (2012), Creswell (1998) offers the researcher the opportunity to go back to the researcher participants for validation of findings. The Creswell (2012) has the entire steps as provided by Creswell (1998) but the limitation is the fact that the concept of intersubjectivity in terms of bringing on board the research participants at the last stage to confirm outcome of the research or data analysis is missing. In addition, to the other approaches for data analysis discussed above

such as Reiners (2012), Polit and Beck (2005), as well as (Laverty, 2003), it is Creswell (1998) who has expressed the need to do second order categorization when the need arises. Audiotape transcriptions from the in-depth interviews were analysed based on ideas and knowledge from Creswell's (1998) model or method of qualitative data analysis. The framework for data analysis described by Creswell (1998) comprises the following steps:

First, verbatim transcribed data from the research participants are read several times to get some ideas or sense of the whole, which are noted down as they come to the mind. Based on Creswell (1998) model for data analysis, in this thesis data collection and analysis proceeded simultaneously. After each interview, the researcher transcribed the tape manually. Listening to the audiotape and reading the transcripts simultaneously checked the accuracy of the transcripts. This was followed by typing individual interview transcript and saving them on the personal computer. An eight-centimetre margin was created on each page of the typed interview to make room for writing codes on the right side of the paper. The typed interview data or transcripts were then read and reread and data was coded by using different colours on the personal computer.

Second, sentences and statements, words and phrases from the research participants which describe dimensions of the phenomenon under study were taken from each transcript. Thus, by reading through the coded data, similar and same statements as well as words and phrases from individual interviews were grouped together based on the colour codes. This process was applied to all the twenty seven (27) individual interviews. On computer, statements, phrases, sentences and words from individual interviews with the same colour codes were copied and brought together or pasted to form different files. In these files interview numbers were also indicated to identify where such similar or same statements, phrases, sentences, and words were coming from in order to make easy identification of their sources.

Third, meanings were formulated from the significant statements. That is, studying the data and identifying circumstances or questions and probing under which such statements, phrases, sentences or words were made; unique names were given to these files. Each file contained common statements and sentences, words, and phrases from the individual interviews.

Fourth, ideas from the data were developed into research themes, out of which theme clusters were developed and finally theme categories were evolved. This was done when a print out of each of these files was also made, read and reread, notes were made from the print out on the right side of the paper and categories were formed from them. Finally, higher-level or second order categorisation was constructed from the initial categories, where same categories were merged. That is, categories, which fit into common files, were also brought together to form final and major categories.

Finally, findings were represented in rich descriptive formats to portray the phenomenon under investigation from informants' lived experiences or point of view. In other words, these major categories form rich and true representation of the lived experiences of the research respondents, which show essential structure of the phenomenon under study. Seven (7) major themes emerged from the phenomenon under study, the coping strategies of newly diagnosed patients with type 2 diabetes mellitus.

According to Creswell's model of data analysis, confirmation or validation of research findings is sought from research participants to be sure that their lived experiences have been presented. If necessary, description of research findings is modified by the researcher to be

congruent with the participants' lived experiences of the phenomenon under study. Again an independent coder is requested to examine and analyse the transcribed data. This is usually followed by a discussion between the coder and the researcher to see if there is consensus on the analysed data (Creswell, 2009). In this study validation was ensured when an independent analysis was undertaken by a colleague who is a fellow PhD nursing student, and also a nurse by profession, was asked to identify similarities and differences of concepts and categories that emerged from the data. This was followed by a discussion between the coder and the researcher to see if there was consensus on the analysed data. Furthermore, three (3) selected participants were also given the opportunity to respond to the concepts and categories developed in the analysis. That is, they were allowed to assess the accuracy of the work, thoughts, and perceptions of their experiences and coping strategies or methods in the concepts and categories. In other words, the participants were allowed to recognise their own thoughts and feelings in the analysis.

Respondents' socio-demographic data were also printed separately which helped the researcher to make quick reference to the data to be able to identify connections between their statements and their socio-demographic characteristics.

During constant comparison, statements made by interviewees are examined within individual interviews and compared across all other interviews (Strauss and Corbin, 1990). In this thesis, interviewees' statements were the data used to develop similarities and differences in the data. Using the constant comparison technique, each narrative and its context was compared for similarities and differences with all other transcripts.

We have been looking at the rationale for the choice of Creswell (1998) for this study and practical processes involved in Creswell (1998) approach. The section below looks at the methodological rigour.

3.16 Methodological Rigour

There are numerous methods of ensuring rigour in qualitative work, some more appropriate than others. The major methods for ensuring rigour are related to trustworthiness of the data. In this thesis, rigor of the data collection and analysis was ensured through four main approaches.

First, the participants who could read were allowed to read transcripts to confirm what they said during the interviews. The researcher also read the transcripts to the participants who could not read to confirm what they had said. This served as a check of the rigour of the recording process.

Second, to ensure credibility in this study, the researcher conducted two (2) pilot interviews with extended family members who have type 2 diabetes mellitus. The findings from the analysis of the two (2) pilot interviews were not part of the main thesis, however they were very useful as the final review of the interview guide was based on the results from the piloting. This was made possible when the researcher showed pilot interviews and their findings from the analysis to the research supervisor for suggestions.

Third, the researcher ensured that all possible occurrences of error were minimised. For instance, during data collection, personal characteristics of the respondents were considered. If a participant was fatigued, he/she was encouraged to reschedule his/her appointment to a more convenient time. This allowed participants to respond to the interview questions in the manner in which they would normally. All interviews took place in a location that participants found comfortable. Finding a comfortable place for the participant during the

interview and ensuring that participant was relaxed assisted in obtaining rich and reliable data in this thesis. Faulty or ambiguous wording of questions was also avoided thus enhancing the rigor with which data were collected. Coding errors such as missing data, incorrect recording, illegible coding, and failure to establish the rules for coding were avoided. Any of these errors would have affected the validity of the result. Coding categories were also checked with thesis supervisors to ensure trustworthiness of the data.

Finally, the researcher looked for negative cases or responses which did not confirm his expectations and dropped them (Johnson, 1999). In qualitative studies, sampling strategies such as seeking negative cases also contribute to ensuring the adequacy and appropriateness of the data (Morse, 1986). Negative cases or deviant cases are instances when data do not appear to fit within dominant patterns. In addition, all interviews were also conducted by one investigator to ensure reliability of interview data (McDougall, 2000).

The last section considers ethical issues of this thesis.

3.17 Ethical Considerations

The researcher received ethical approval from the Research Ethics Committee of the Faculty of Health and Life Sciences, De Montfort University, UK on the 23rd April 2008 (Ref: 347 in Volume 2) to undertake the thesis. Letters of introduction were then written by researcher's supervisors to the authorities of a hospital in Ghana (Management Board, Nursing Administration and Doctor-in Charge of Diabetic Clinic). Similar letters were addressed to the Municipal Director of Health Services for the municipality where the hospital is located, President of Ghana Registered Nurses Association branch at the hospital, and President of the Diabetic Patients Association (Branch at the Hospital) for permission to carry out the study

(copies attached at the last page in Volume 2). In addition the researcher booked separate appointments for meetings with the hospital management team, municipal director of health services, the Hospital Administrator, the doctor in-charge of the diabetic clinic and the President of the Ghana Registered Nurses' Association to brief them further on the research. Following these meetings, permission letters were issued by the Municipal Health Directorate, the Hospital Management Board and the Doctor in-charge of the Diabetic Clinic at the Hospital in order for the researcher to carry out the thesis (Copies of permission letters attached at the last pages in Volume 2).

Participants were informed that any identifying information would not be included in the written transcript or any report or presentation of the thesis findings. Informants were also told that they could decline to answer certain questions if they so wished. Participants were also advised that interview materials would be kept locked in a cupboard in the researchers' custody and that only the researcher and his supervisors would have access to them.

Biographic data were stored in a locked place and separated from interview data to make sure no associations between the two could be made. Pseudonyms were used in reporting research to protect the anonymity of the participants. The transcripts will be kept for a minimum of 5 years following completion of the thesis.

In conclusion, this chapter has described research methodologies appropriate to qualitative research, in particular phenomenology as an appropriate methodology for uncovering the coping strategies employed by newly diagnosed type 2 diabetic patients at a hospital in Ghana. The research setting was described. Methods of data collection, sampling strategy and sampling frame were detailed, followed by methods employed in data analysis, which included a detailed account of Creswell's (1998) model or method for qualitative data analysis. Methodological rigour within this qualitative study was detailed. Ethical issues

pertinent to this study were then discussed. The following chapter presents the findings from the thesis.

Chapter Four

Presentation of Findings

4. Introduction

This thesis aimed to explore the coping strategies used by newly diagnosed patients with type 2 diabetes mellitus, at a hospital in Ghana. A hermeneutic phenomenological approach to qualitative research was used to answer the following research questions:

1. What are the coping strategies employed by patients newly diagnosed with type 2 diabetes mellitus?
2. What are the `lived experiences` of patients newly diagnosed with type 2 diabetes mellitus?
3. What are the perceived causes of diabetes mellitus from the perspectives of patients newly diagnosed with type 2 diabetes mellitus?
4. What meanings do patients, newly diagnosed with type 2 diabetes, attach to the diagnosis?
5. How do patients, newly diagnosed with type 2 diabetes, react to the diagnosis?
6. How can patients, newly diagnosed with type 2 diabetes be assisted to live productive lives, cope effectively with the problems associated with diabetes mellitus, and self-manage the condition?

During data collection the researcher was aware of participants' essentially Ghanaian `world view`, which pervaded the interviews and was essentially recognisable to the researcher as a Ghanaian, sharing a cultural identity with the participants. This chapter presents the findings from this study and followed by analysis of the findings. In all twenty seven (27) participants were interviewed before saturation occurred. The researcher had, on occasion, to use specific questioning as a technique to ensure that any coping strategies used by participants were uncovered. For instance, participants were asked to talk about whether or not information about diabetes provided by health personnel and/or other sources had impacted on or influenced them and the way they subsequently coped with the condition. It appeared to me that participants' understanding of coping strategies was not straight forward and I had to rely

on what I had learnt from the literature review to pose specific questions on coping. However this strategy served as a stepping stone for participants to tell me much about coping methods they utilize in managing the condition in the context of Ghana. In this regard respondents were encouraged and pressed but not coerced during their narratives to expand on their experiences, in particular any coping strategies they used. Prompting strategy was therefore intended to enrich the narrative accounts of participants' experiences of coping and other related issues.

The qualitative method of data analysis developed by Creswell (1998) served as a framework for the present study and employed to offer a rich description of the essential structures of the phenomenon under study. (Processes involved in Creswell's (1998) data analysis has already been presented in Chapter 3).

In this present study, seven (7) major themes emerged from the phenomenon under study, which was essentially to uncover the current coping strategies of newly diagnosed patients with type 2 diabetes mellitus. The major themes, which emerged from the data, are listed below:

1. Cultural Illness Beliefs about the causes of diabetes mellitus
2. Social meanings attributed to diabetes
3. Patient's reactions to diagnosis and resolution
4. Health seeking behaviour of patients with type 2 diabetes
5. Patients' concept of seeking cure
6. Living with diabetes mellitus and associated experiences.
7. Coping methods used by the respondents included positive and negative strategies, and alternative strategies.

4.1 Presentation of Study Findings (Part A & B)

The following sections present the findings and subsequent analysis, organised within themes and sub themes, drawing on verbatim quotations from respondents' narratives to illustrate how themes and sub themes were arrived at. The first section presents data from parts (A) and (B) of the interview schedule, that is, the brief overview of socio-demographic characteristics of the participants ($n = 27$), including their occupations.

4.2 Brief overview of Socio-demographic Characteristics of the Participants

In all twenty seven ($n = 27$) participants took part in this study comprising of sixteen (16) males and eleven (11) females. Their ages were between 19 years of age and 85 years of age. All of them were type 2 diabetics who have been diagnosed between one and half months and 3 months period. Twenty six of them were Christians except one who was a Muslim. Eleven of them were government workers whilst fifteen of the respondents were self employed and one a student at the secondary school level. They were all Ghanaians by birth and were all recruited as research participants with type 2 diabetes mellitus at a hospital in Ghana for this study. Three of them have already acquired university education and another 4 were teachers at the basic school level. Others were secondary school leavers whilst the rest have had their basic education. Only one participant had never attended school before.

4.3 Presentation of Study Findings (Part C)

The following section presents the findings from the study organised within 6 major themes, the first of which is cultural illness beliefs about the causes of diabetes mellitus in Ghanaian context.

4.4 Theme (1) – Cultural Illness Beliefs About the Causes of Diabetes Mellitus

4.4i Introduction

The theme ‘cultural illness beliefs’ about the causes of diabetes mellitus’ is organized under six (6) categories within which sub-categories illustrate variations in respondents’ narratives about causes of type 2 diabetes mellitus. The causes of diabetes identified by participants’ are listed below, followed by detailed explanations of each attributed cause.

1. Spiritual causes
2. Biomedical causes or natural causes, which identified the use of hospital care or supernatural intervention or both.
3. Consuming ‘toxic’ foods
4. Consuming sugar in the diet (locally diabetes is referred to as ‘*Asikyire yare, Asikafo yare*’, meaning sugar disease)
5. Lifestyle causes
6. Other causes, for example ‘crossing someone’s urine’ and/or sleeping with a person known to have diabetes – so-called ‘opportunistic’ causes

4.4ii. Spiritual Causes of Diabetes Mellitus

In the Ghanaian society, cultural context of chronic illness, adverse or hostile and unpleasant events and, even to some extent natural calamities, as well as natural deaths are associated with the individual(s) in the close and extended family or friend(s) or even ancestors or gods and other mystical powers. In Ghana, it is perceived that some individuals in the close and the extended family set ups, friends and significant others have spiritual powers to cause afflictions and disease conditions to other people (Assimeng, 2010). Usually, such persons or entities are accused of causing disease or causing the down-fall of the victim due to several factors such as:

- I. The victim is progressing in life at the expense of others and so progress must be `arrested` through spiritual means.
- II. The victim has done something against the gods or ancestors of the family and is therefore being punished by the ancestors or gods.
- III. The victim has done something very `bad` or serious against his fellow human being and therefore the `bad deeds` are following him.

Diabetes was attributed by participants as being associated with spiritual powers in several ways, for example, by the actions of witches (Abayifo) through `witchcraft`. Other respondents mentioned `spiritual buying` to indicate that the disease was sold to them spiritually, in which case expressions such as (`nto yare`) which denotes a `bought disease` was used to explain this perception. Some respondents discussed the idea that diabetes may be contracted `spiritually`, through food that one eats, in that an envious person, in some mystical way, is able to give the disease, in this case diabetes, to another person (the one who is the focus of the envy) through food.

Other respondents mentioned that people can `spiritually` cause diabetes mellitus to afflict their own `selves`. In all, fourteen (14) respondents mentioned that diabetes may be caused by spiritual means. However, a number of reasons were attributed to these `spiritual` causes. Below are examples of how diabetes is perceived to have a spiritual causation and is typical of a `Ghanaian` world-view. The first of these is the belief that if someone is thought to be hard working or seen to be progressing in life, then others will become envious and resort to spiritual means to thwart the efforts of the other person to do well.

One participant perceived diabetes to have been `given` to her spiritually because she was progressing in life and a hard working woman in her family. She believed her detractors did not want her to progress and therefore crippled her with diabetes mellitus, so that she could not go about her business activities.

“I think that the disease was sold to me by somebody who does not want my welfare in my family. The person knows that I am hard working woman in our family, so that person envies me and so they do not want me to be able to go about my business of selling food in schools, so if they give this disease to me” (P22)

Another participant also held the belief that diabetes is contracted through spiritual means.

“There are very bad family members who possess mystical powers and they can use that to cause harm to other members of the family whom they envy like me because I am hard working and I am progressing in life” (P3)

Conversely, another manifestation of a `spiritual` cause of diabetes related to acquiring the condition through food or alcohol, for example one participant who is a pastor of a Christian church suggested:

“Witches and wizards through mystical powers that may cause afflictions to other people in a family can also cause it. At times spiritually, one can get it through a

dream, which is related to mystical powers. One may be eating through a dream and the disease is given to you through the food” (P9)

Actually, it was ironic for me to observe this participant telling similar experiences as other participants. This is because, as a pastor of a Christian church, his beliefs and doctrinal teachings may be quite different from perceptions held by other people regarding traditional beliefs and existence of spiritual beings including witchcrafts. This may tell us the extent to which, how the social fabric of Ghanaian is engulfed with belief in spiritualism as an explanatory factor for occurrence of most situations and events as well as disease conditions (Twumasi, 2005).

Another participant, an electrical engineer, with a university first degree, similarly explained how he acquired diabetes:

“Why the big family but only few people in the family can get this condition. Why my father, my sister and myself and nobody else, which means that there are other explanations which can be used to explain it..... I believe that there is a spiritual component about the cause of this disease. If you are living in an extended family house and somebody does not like you, the person can cause this disease to you through mystical powers” (P20)

Assimeng (2010) has pointed out that, in Ghana, spirits such as witchcrafts are essential in the explanation of so many social actions including disease causations. As a Ghanaian, and a researcher, I have observed that even natural calamities in Ghana are associated with supernatural beings such as witchcrafts and ancestral spirits. For instance, in 1984, severe drought and its accompanying famine were attributed in many quarters to gods who were annoyed with Ghanaians because of bad deeds of certain individuals. Pacification rites were therefore carried out in many communities to appease gods who were annoyed with Ghanaians.

In contrast to a spiritual causation attributed to others, that is, outside the person or extrinsic to them, a number of participants suggested a spiritual cause for the disease, but located within themselves, or intrinsic. Four (4) participants in this study noted and mentioned that they were labeled as witches. In my observation as a nurse during my interaction with patients and non-patients, it is common to observe that, people with disease conditions are accused by families or communities of causing harm to themselves spiritually. People with chronic conditions are usually the victims of such accusations. Such conditions are perceived to be caused by supernatural powers either within the affected person or from the external world. People of all ages are included in this case, as having spiritual powers to cause dangerous diseases, including diabetes mellitus to themselves. For instance, Allotey and Reidpath (2001) pointed out that the phenomenon of “spirit child” is practiced in the Kassena-Nankana District in Ghana where some children are believed to possess spiritual powers which can cause misfortunes and mayhem to themselves and families as well as the entire community which they belong to. Through spiritual means such children are eliminated from the earth by killing them so that the harm and misfortunes or mayhem are turned aside completely (Allotey and Reidpath, 2001).

One participant was accused of causing the diabetes to himself. This was what he had to say:

“They think that I am a witch. This is what they think of people with diabetes because you always eat and you do not gain weight and so they think I have powers and doing harm to myself. In my case for instance some of my sisters and brothers accuse me of being a wizard” (P21)

In contrast to what other respondents said about the spiritual cause of diabetes, one (1) Moslem respondent mentioned that God causes diabetes, as God is the creator of everything in this world, which he mentioned in Ghanaian Twi language as ‘Nyame a Obo Ade Nyinaa’

literally meaning God created everything. To this participant, as a Moslem, every help is from God, likewise any misfortune or any disease is from God.

This was what he had to say:

“As for us Moslems if you need something, the only thing we do is to ask God to help so that you can get what you need. The same thing applies when you are down with any disease. I know that it is God who created me and so if there is any disease then it is from Him and nobody else” (P6)

It is ironic to note non-Moslem participants did not mention God as directly causing diabetes, which suggest differences in belief systems between Moslems and Christians about the fundamental causes of disease conditions.

It appears to me that irrespective of participants’ background including their education, religion, age and sex orientations, there were no differences in their perceptions regarding spiritual causes of diabetes as almost all participants hold strongly to this perceived belief. It is a common belief in Ghana, and so everybody succumbs to that, irrespective of background and social upbringing.

4.4iii. Biomedical Causes of Diabetes Mellitus

Two themes emerged from respondents’ narratives in relation to a belief in a biomedical causation for diabetes, namely a hereditary or genetic cause, and a physiological cause of the condition.

Hereditary causes emerged from nine (9) respondents’ narratives. Descriptions were drawn from what was remembered about family histories, for example that fathers, grandfathers, mothers, brothers, or sisters has or had diabetes. Apart from what participants’ remembered about some family members having the condition, on the other hand patients with diabetes

are given health education at the hospital or the clinic by nurses and other healthcare professionals. During these educational sessions, I have observed that patients are told that diabetes mellitus is familial and as such family members have the chance to develop the condition. Two (2) respondents noted family members were living with diabetes, while one (1) respondent stated that both parents were diabetics.

“My father lived with diabetes for so many years, about twenty five (25) years before he died and my sister too had this same disease for about three years now so I know this disease so well. I am the third person to have this condition in our family. My father was the first, followed by my sister and then I have it now” (P20)

Another participant explained that both parents had the condition.

“It is a genetic disease, so if your parents have it you can easily have it. I have it and my senior brother also has it.....My father had it about ten years ago and my mother just recently about six (6) months ago. They say that if the pancreas is not working, then diabetes is developed. When this happens, the person’s pancreas is not able to produce insulin for the person” (P18)

Physiological causes of diabetes emerged in descriptions provided by the respondents, which centered on the idea that diabetes is a ‘disease in the blood’ (‘mogya mu yare’) or diabetes is due to an internal structural abnormality. Nurses and other health professionals in their education of the general public on specific conditions usually use local terms and ideas in Ghana that people can easily understand and associate with the condition or the disease in question.

Participant 10 suggested that diabetes is a disease in the blood:

“They say that it is in the blood, when the sugar level in the blood has gone up that is what is called diabetes. With this disease if you have it you can urinate a lot, reduce in weight and drink lot of water and you can become very weak unless I go to hospital for treatment and what you need to do” (P10)

Five (5) respondents, on the other hand, suggested that diabetes occurs when an organ in the abdomen is obstructed which results in malfunctioning. As a nurse, I have observed that, community health nurses in Ghana describe and explain to the public during health education that diabetes mellitus occurs when structural abnormality occurs in the abdomen when a certain organ fails to produce some chemicals which the body needs to function well. This common explanation may explain the failure of the pancreas to produce insulin in these patients. The nurses in some cases do not use the technical term pancreas' failure to function well probably due to the level of education of patients they interact with. The following are explanations by participants 21 and 27 about the perceived cause of diabetes due to internal structural abnormality:

“I was told by the doctor that everybody has something in the abdomen and when there is blockage and that thing is not working properly then you get diabetes. That is what the doctor told me” (P21)

“Diabetes occurs when certain organ which produces insulin in stomach is not able to work effectively due to blockage of that organ. Because of that the organ is not able to give off the insulin for us and that is why we are given some drugs to help the organ to work effectively” (P27)

In contrast, four (4) participants, arguably better educated described their perceptions about the cause of diabetes using medical terminology, for example as an endocrine and/or metabolic disorder, coupled with poor lifestyle and other factors:

“There are hereditary factors and lifestyle factors, viral factor and other environmental factors and there is gestational diabetes. I know diabetes come about if the pancreas is not functioning well, not producing enough insulin” (P1)

Whereas a female social worker, again arguably well-educated suggested:

“I know that diabetes is malfunction of the pancreas and I am not getting enough insulin and according to some counselling I went through, if I have a problem or that history in my family. In fact it is true because my elder sister has diabetes; my sister I come after is diabetic and myself” (P7)

Another respondent eloquently described a physiological cause of diabetes this way:

“Diabetes, what I have heard and what I have read shows that a part of the body called pancreas, which sieves what goes into our body which has end result as glucose. That pancreas fails to function in the process of doing this work.at the beginning I was urinating a lot, drinking too much water and I thought that it was good to be drinking too much water and urinating too much. It was later that I observed that I had developed diabetes” (P11)

It would appear that where respondents attributed diabetes to biomedical causes, the better educated were more able to draw on medical terminology to explain the causes of the condition as opposed to simply stating that family members had the condition, therefore they now have the condition. For instance, participant number 1 is a public health nurse who arguably and categorically mentioned most of the factors which may lead to diabetes mellitus. Similarly the participant number 7 a social worker mentioned that due to her educational background and experiences she has gone through during counselling at post diagnosis of diabetes, she got to know much about the condition. In addition some of her family members such as her own sisters have the condition, which seems to explain the fact that familial experiences as well as what she learnt about the condition boosted her general knowledge about the condition. However, participant number 11 is a farmer but with some level of education was able to describe in his own way how diabetes occurs probably based on what he had learnt and heard from other people. It appears to me that the well educated might have heard about the condition from nurses through health education and might have also read about it from books and internet for more in-depth information about the condition in terms of its pathophysiological processes.

4.4iv. Consuming Toxic Foods

Respondents mentioned and connected the increasing incidence of diabetes in Ghana to poor and harmful farming practices, which have impacted on the quality of farm produce. In Ghana, people generally perceive that contemporary food products are contaminated with agro-chemicals, especially pesticides. They further perceive that such contaminated foodstuffs such as garden eggs, lettuce, cucumber and tomatoes can cause diseases, including diabetes. As a researcher and a Ghanaian doing research in my own country, I need to share my own experiences as well to explain and expand the participants' narratives. I lived in the rural area of Ghana during my upbringing and I observed that in an attempt by farmers to increase crop yield, all sorts of inappropriate farming and fishing practices are employed, such as the use agro-chemicals to induce or force crops to ripen earlier as well as using chemicals to kill fish in streams for sales and personal consumption. I did not understand the health implications of these bad farming practices at that time until I became a nurse. Four (4) respondents ascribed the cause of diabetes to poor quality foods:

“These days the foods we eat are poisons because of certain chemicals they use to grow them – strong chemicals are used and these can affect those who use these foods that are brought to the market. I am a victim because if you go to the market by all means you have to buy something to cook but they have been destroyed from the farm already with strong chemicals. If you eat this for many years by all means you can develop some illnesses out of that” (P24)

Participant 21, in similar fashion commented about so-called 'contaminated food';

“If you also eat very poor food you can also contract diabetes mellitus. These days all the foods we buy from the market are contaminated foods because if you want to get money on time you need to spray your tomatoes, for example, with chemicals to ripe prematurely.....Even at times they use chemicals to kill fish in the river and seas and forest animals for us to eat so we can get all the disease including diabetes” (P21)

Poor farming practices present a serious situation in Ghana, and one that needs to be remedied with appropriate interventions on behalf of Government and other agencies. The

reality and/or perception that poor farming practices are detrimental to health leads people to feel powerless in preventing long term conditions such as diabetes. Individuals are less likely to respond to health education and advice to improve dietary habits if they believe the locus of control to be extrinsic as opposed to intrinsic.

Participants reported great demand on the part of the farmers to increase supply of crops for consumption as an important factor in the increase in dangerous farming practices. In Ghana, it is common to observe that both subsistence and commercial farmers become motivated to increase crop yield when prices of food crops go high. In line with this, farmers employ all sorts of harmful farming methods to increase crop yield in order to get the high existing market prices for their profit margins to mount. However, the awful and poor farming practices by the farmers were perceived by participants to have grave health implications on consumers of the farm produce. Three (3) respondents narrated their stories regarding how the perceived contaminated foods lead to diabetes this way. Participant 3 said:

“Toxic foods cause diabetes. The food growers want quick money and so they spray the crops with agro-chemicals to make their crops ripe earlier” (P3)

Whereas participant 25 said:

“You cannot just understand how they are able to increase their produce. They use chemicals to grow crops in order to meet the high demand from the market” (P25)

With participant 26 suggesting:

“Demand for food is high so they want quick money that is why they use fertilizer and also spray with agro-chemicals to induce early ripening to get higher market prices”(P26)

In Ghana, it seems that the perception of “contaminated food” or “toxic food” as a cause of diabetes mellitus and other similar conditions is a common belief irrespective of a

person's background. Irrespective of the participants' orientation and background, it appears to me that their experiences point to one specific issue, the contamination of food crops due to poor farming practices.

Clearly, a perception of poor farming practices, including crop spraying with chemicals, driven by demands on farmers to increase crop yield, was implicated in the cause of ill health and diseases such as diabetes. The implications of this, for health educators are such that health education around diet needs to take account of these perceptions if individuals 'self-manage' their diabetes.

4.4v. Consuming sugar in the diet ('Sugar Disease' [Asikyire Yare] and/or disease of the wealthy [Asikafo Yare])

Two Ghanaian terms, 'asikyire yare' (sugar disease) and 'asikafo yare' (disease of the wealthy) are used interchangeably to denote diabetes mellitus. In all, ten (10) respondents ascribed to the perceived belief that too much sugar consumption causes diabetes. It appears that in almost all the ethnic groups in Ghana, there is a word or a phrase which represents an association between too much consumption of sugar and the development of diabetes mellitus. As a professional nurse in Ghana, one of my social responsibilities is to educate the public on health issues. I do organize health education for church groups and other organized groups in my locality in Ghana, and that during some of these sessions and interactions with people, individuals do tell me that diabetes mellitus is developed from too much consumption of sugary foods. I have also learnt from my students and in Ghana who have these perceptions on association between sugar consumption and development of diabetes mellitus.

Participant 2 described his perception about the cause of diabetes:

“I know that too much intake of sugary foods can lead to diabetes. It is called sugar disease because if you eat too much you can easily get it because the amount of sugar in your blood will go up more than necessary so that you get that condition..... Others also call it ‘Asikafo Yadee’ (rich man’s disease) because they think that when you eat very rich diet as a rich person then you can get diabetes” (P2)

Participants 4 also described it this way:

“It is characterized by too much of sugar in the blood. After eating foods containing sugar, the blood sugar level goes up. The body cannot use the sugar” (P4)

Participant 22 shared similar perceptions of sugary foods causing diabetes;

“If you also eat foods which have high sugar content you can also get diabetes. But in all the cases if the devil does not like you in the family they can let you have this disease through any of these ways that I have mentioned to you” (P22)

To participant 22, the devil looks for fertile grounds to cause diabetes. In her view taking too much sugar in the diet led her to be “envied” by the devil, who subsequently gave her the disease.

In this study, the Twi expression ‘asikafo yare’ or disease of the wealthy was used interchangeably with the word ‘asikyire yare’ or sugar disease. This expression has three dimensions of meaning. First and foremost, it was perceived that sugary and fatty foods and other ‘rich’ foods in general are thought to be diets for the rich in our society in terms of their ability to access such foods. The reason being that ‘so-called’ rich people have the money and can therefore afford to buy and eat the kinds of food rich in fat and sugar, that might otherwise be unavailable to economically deprived people. Second, diabetes treatment and care, especially within the hospital setting was thought to be expensive and therefore diabetes was associated with those who could afford to ‘pay’ for it. Third, diabetes is a chronic disease

requiring a prolonged period of treatment which in turn requires money and resources to cope with the condition. Respondents were with the view that the best healthcare for diabetics could be accessed if one has money to take care of self.

Participant 4 explained why diabetes is considered a rich man's disease:

“People refer to it as rich man's disease because it is a chronic disease if you don't have money you cannot manage it because it has lot of demands like the special diet one has to take. It is also thought that it is the rich person who gets this disease because the rich eat very nutritious food and gain high weight and out of that one can become obese and if not fortunate you can easily develop diabetes” (P4)

Participant 25 expressed ‘asikafo yare’ this way:

“It is a chronic disease and so its treatment needs time and money. If there is no time and money, it makes the treatment impossible” (P25)

In contrast participant 27 referred to diabetes as ‘asikafo yare’ in the ‘olden days’ as it was only the rich who contracted the condition due to lifestyle. However, in more recent times everybody can acquire the condition. She had this to say:

“In the olden days they used to call it rich man's disease because it was only the rich people who got this disease because of their way of life, getting good food to eat and taking sugary drinks but this time anyone can get this disease including children and adults so everybody is at risk” (P27)

In summary, in the absence of an understanding of biomedical causes of disease, participants attributed the cause of diabetes to either the ingestion of ‘toxic’ food, that is, food poisoned by poor farming practices, or the ingestion of too much sugar, that is, a sugar rich diet. The latter was also associated with the wealthier members of Ghanaian society, as these individuals were perceived to have ready access to food rich in fats and

sugars. Interestingly, while some respondents understood the patho-physiology of diabetes, to a greater or lesser extent, most respondents understood diet to be implicated in the cause, albeit in different ways. Some respondents understood diet and its role in diabetes as being extrinsic, that is, outside their locus of control, for example a bought disease, or a given disease, through food, whereas others felt the role of diet to be intrinsic or within their locus of control. However, in the latter case the cause of diabetes was then attributed to being wealthy, which enabled responsibility for acquiring diabetes to be located away from the individual.

4.4vi. Lifestyle causes

Seven (7) respondents believed the cause of diabetes mellitus to be ‘lifestyle related’ in that affected individuals consumed excessive amounts alcohol, fatty foods, smoked excessively, and/or abused drugs. It is common to see in Ghana that during festive and happy occasions such as weddings and birthday parties, people celebrate with excessive amounts of alcohol, mineral drinks and fatty foods. Such foods together with lack of physical exercise individuals are at risk of developing non-communicable diseases such as diabetes mellitus. It appears that the effect of modernization and urbanization has affected the life of Ghanaian people including what they eat as foods from the western world such as “fast foods” are found every corner of Ghanaian villages, towns and cities. These have health implications for individuals who indulge in these poor health practices. The following quotes illustrate the extent to which lifestyle was viewed as causative factor in diabetes:

“Other people too can get it through the lifestyle, especially those who drink lots of alcohol or those who eat too much fat and become very fat persons” (P15)

Similar to what participant 15 mentioned, respondent 17 also stated:

“I know also that obesity is one of the factors that causes diabetes. It is a life style condition based on the food that one eats and alcohol, so if someone eats very fatty foods, one can get this condition” (P17)

It is important to note that irrespective of participants' background and orientation, those who mentioned lifestyle as factor for diabetes development considered alcohol consumption as a major factor in their narratives. It is possible that they might have heard this from nurses through health education as well as from family members and friends and other people from the general public. In addition, they might have learnt about the lifestyle related factors from other sources as most of them have some educational background.

However, the participant 5 attributed her condition to drugs she used to consume some time back. Participant 5 is a female who acknowledged that, she used to buy dexacortine (dexamethazone) tablet to boost her body weight.

“I believe that probably I had it from the drugs I used to buy from the drug stores. Those drugs they called dexacortine, supervitone. I have said that it is dexacortine, which has let me have diabetes. I used to take blood boosting drugs especially those that will make me gain weight. Those drugs contain a lot of sugar and so you can easily develop diabetes from it” (P5)

Interestingly, and in contrast to the views expressed above, participant 5 acknowledged that so-called 'good living practices', mitigated against the development of diabetes:

“It is from the food we eat. If you are able to check your food well these problems will not come. If you know how to take alcohol or you take fat you can easily have diabetes” (P5)

It would seem fair to say, that while most respondents acknowledged the role of negative health behaviour in the onset of diabetes, at least one participant understood the relationship between positive health behaviour and the reversal or prevention of diabetes.

So far we have been looking at perceived causes of type 2 diabetes from the perspectives of type 2 diabetics which centred mainly on five major causes. The next section examines other similar causes of diabetes which centres on the effect of crossing diabetics urine or sleeping with a person with diabetes.

4.4vii. Other causes of diabetes (the Ghanaian context)

- `Crossing` someone's urine

Two (2) participants perceived their diabetes mellitus as caused through `crossing the urine` of someone. By this is meant if a person with diabetes openly urinates in a public place (not an uncommon practice in some Ghanaian communities) and someone unwittingly walks across the urine afterwards, that person can then contract diabetes. In some communities in Ghana, public urinals and toilets are not common and for that matter individuals who commute in such places find it difficult to get places of convenience when the need arises. Under such situations, people tend to urinate openly and indiscriminately and it is perceived that individuals who walk over or cross urine voided by diabetics stand the chance of contracting diabetes mellitus. I have observed this myself as individuals may have to walk lengthy distances outside their homes but may not come across a public urinal or toilet and there is tendency for the one to urinate anywhere due to unavailability of “public places of convenience”.

- Sleeping with an affected person

In a similar vein, the two (2) respondents mentioned that sleeping with somebody who has diabetes mellitus can cause diabetes to be contracted. These respondents expressed their views on the `contagious nature` of diabetes mellitus:

‘Some people think diabetes is caused by other things like if somebody urinates and you cross that urine you can also have it. Others think if you sleep with someone who has it on the same bed, you can also have the condition’ (P1)

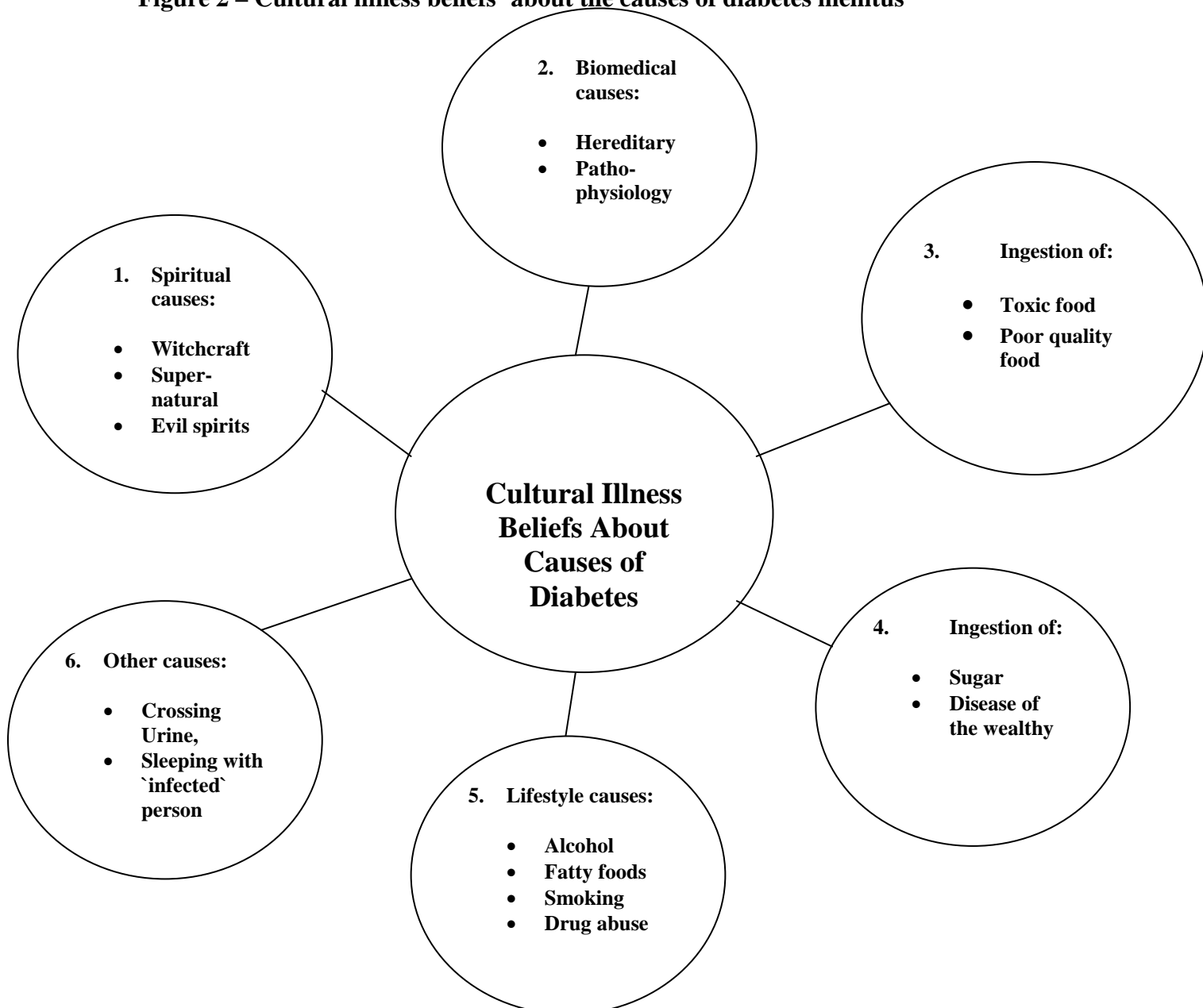
“Even when somebody urinates and you cross the urine, you can have the disease. There are so many issues about this disease” (P5)

The perception of diabetes mellitus as a contagious disease suggests the need for well-coordinated educational programmes for patients and the general public as to the true causes of diabetes, as a means to explaining how diabetes may be controlled and managed and in many cases prevented, while at the same time recognising beliefs about ill health and disease as being caused by extrinsic factors may prevail. In this way, that is, recognising and acknowledging, without diminishing the importance and place of traditional and lay beliefs about health and illness allows nurses and other healthcare professionals to better understand patients living with diabetes mellitus and what health interventions may be most effective in developing individualised coping strategies. Culturally appropriate care is essential if patients are to manage diabetes effectively within the particular context of `being Ghanaian`.

In summary, the previous section considered the traditional and lay beliefs about the causes of diabetes mellitus from the perception of Ghanaian `newly diagnosed` diabetic patients. These beliefs appeared centred on spiritual causes that is, diabetes acquired through the intervention of spirits either as a direct result of ill will, or as a result of `upsetting` the gods or spirits; biomedical causes or patho-physiology of disease causation, diabetes as a result of ingesting toxic or poisonous foods, ingesting too much sugar (in Ghanaian - sugar disease - *Asikyire yare*, and/or *disease of the wealthy - Asikafo yare*). Other causes of diabetes mellitus were attributed to walking `across` or `crossing` the urine of someone with diabetes, or sleeping with a person who had diabetes, i.e. diabetes as a contagious disease. Figure 2 below illustrates the causes attributed to diabetes mellitus as expressed by Ghanaian respondents in

this study. The diagram highlights relationships between diabetes mellitus and the various causative factors as discussed above. The next section concentrates on the social meanings ascribed to diabetes mellitus, paying particular attention to the context of `being Ghanaian, and the role of culture in understanding disease causation.

Figure 2 – Cultural illness beliefs’ about the causes of diabetes mellitus



4.5 Theme (2) - Social Meanings attributed to Diabetes Mellitus

4.5i. Introduction

This section looks at the social meanings attributed to diabetes from the perspectives of patients living with diabetes type 2 in Ghana. Some of these social meanings are closely linked to the causative factors of type 2 diabetes mellitus, which have been discussed above. For instance, the social meanings given to diabetes are connected to its chronic nature, the familial nature of the condition, the damaging consequences of having the condition, the belief that excess sugar causes diabetes mellitus, and the perception that those who have diabetes have been somehow ‘cursed in society’. It must be noted at this point the position of the researcher within this research, in that on the one hand the researcher is a fellow Ghanaian, and therefore has undertaken the study within a shared cultural context. On the other hand, the social context of the researcher is quite different, that is, an academic with knowledge of the causation of health and disease. In addition, while it appears that culture plays an important role in the way people conceive health and illness, culture is also seen as fluid and shifting, being at times at the forefront of beliefs about health and illness, while at other times being secondary to social and political factors affecting beliefs about health and illness.

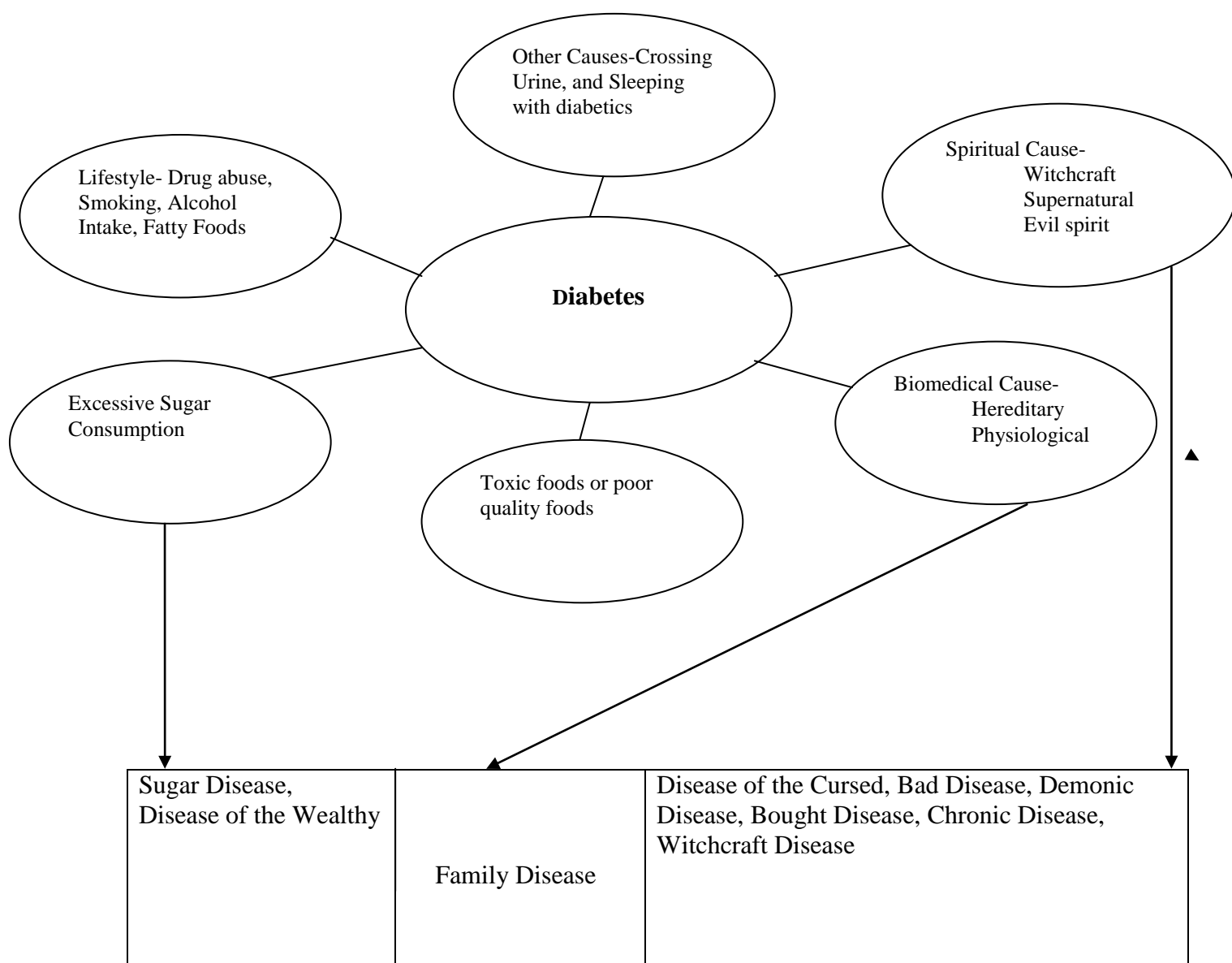
From the perspectives of Ghanaian diabetic patients, the meanings ascribed to diabetes mellitus were strongly tied to cultural, social and religious or spiritual beliefs. Social meanings of diabetes mellitus ascribed by the Ghanaian patients in this study centered around words or phrases such as ‘bonsam yare’, ‘bayie yare’, a term which means ‘demonic/satanic disease’ or ‘witchcraft disease’, ‘yare bone’ (bad disease), ‘koankoro yare’ (chronic disease), ‘abusua yare’ (family disease), ‘mogya mu yare’ (disease in blood), ‘asikafo yare’ (disease

for the wealthy), ‘nto yare’ (bought disease), ‘asikyire yare’ (sugar disease), and a disease for the cursed in society (‘duabo yare’). Each of these meanings ascribed to diabetes mellitus inform us to a large extent of the nature of diabetes, its source and what a diagnosis of diabetes means to the affected individuals and therefore how it is perceived to label an affected person in different ways. As a Ghanaian and a researcher, it seems to me that names are given to situations and events based on how that situation or event is perceived in Ghana and this seems to run through all facets of life of a Ghanaian. For instance, unique “names and connotations” or “special names” or “social names” are given to disease conditions depending on how individuals, both the sick and healthy perceive the disease condition. For instance, in a Ghanaian study by Dennis-Antwi (2006), participants ascribed social names to Sickle Cell Disease (SCD) as “Ndwedwendwedwe”, a Ghanaian Akan Twi term, meaning “stunted growth”, describing the individuals who are affected with SCD. Some of these social terms ascribed to people with different disease conditions seem to be branding and stigmatizing the affected person. Table 1 below shows three (3) major groupings of the social meanings arising from the current study. Figure 3 indicates the direct relationship between the cultural illness beliefs about the causes of diabetes mellitus and the social meanings subsequently ascribed to the condition.

TABLE 1: SOCIAL MEANINGS ASCRIBED TO DIABETES MELLITUS

Sugar Disease, Disease of the Wealthy	Family Disease	Disease of the Cursed, Bad Disease, Demonic Disease, Bought Disease, Chronic Disease, Witchcraft Disease
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FIGURE 3: SHOWING A LINK BETWEEN CAUSES OF DIABETES AND SOCIAL MEANINGS ASCRIBED TO DIABETES



4.5ii. Diabetes as a demonic/satanic Disease ('Bonsam Yare'), witchcraft disease ('Abayifo Yare')

Ten (10) respondents in this Ghanaian study described diabetes type 2 as a demonic or satanic/witchcraft disease condition. The term 'bonsam yare' or 'abayifo yare', which literally means 'demonic/satanic/witchcraft' disease, was used to denote diabetes in an essentially 'Ghanaian' sense. Individual participants ascribed this social meaning of diabetes

as related to the source of the condition, which was invariably a demon or Satan or so-called `bad spirit`. As a demonic condition, this belief is explained in that the affected person is being tormented with a serious and/or life threatening condition; the perception being that a demon is believed to be a family member; a friend, colleague, or a significant other who is ready to kill or cause an end to the life of the afflicted person.

Participant 4) expressed it thus:

“It is devil’s disease because a bad fellow in the family through mystical powers can sell the condition to people in the same family or it can be given to people through other means like even through food that has been given as a gift or it can be given to people through any other means” (P4)

Whereas participant 15 perceived that diabetes as a demonic disease was given to him by a person who did not like him in society. He had similar explanation:

“Through mystical powers other people who possess powers can give demonic diseases like diabetes disease to people they do not like in society. Those who are witches can give the disease to other people in a particular family. It can be even your friend; the person can give the disease to you through the food that you eat” (P15)

However, according to participant 22 diabetes is a “devil’s disease” because if the devil wants to afflict an individual with any disease condition it is more than likely to be diabetes, which is given.

“It is a devil’s disease because if devil wants to afflict you with any disease it is diabetes which they will give to you so that you do not prosper in life because it will drain all your money from you since it is a chronic disease” (P22)

Two further participants described the demonic/satanic meaning of diabetes as a chronic condition, and one which would need to be battled with for the rest of life:

“Diabetes is a satanic disease due to the fact that devil in the family brought it to me. The devil does not want me to prosper in life. The devil wants me to go to hospital everyday because of chronic nature of the disease, so it is all about witchcraft activities” (P27)

Diabetes mellitus, when seen as a demonic condition, carried a poor prognosis, the perception of a chronic condition being one whereby an affected person would always need hospitalisation for review of the condition, and subsequent ‘battle’ with the disease throughout life.

These perceptions were generally carried by participants of these study irrespective of participants’ background in this study, either educated, Christian or not, not educated. In addition this perception was not linked to poor socio economic grouping as different categories of participants had this perception, for instance even a pastor of a Christian church, P. 9 had belief in this perception.

4.5iii. Diabetes as a ‘Bad Disease’ (‘Yare Bone’)

The Twi term ‘yare bone’, literally means ‘bad disease’ and was used by four (4) respondents to describe how destructive diabetes could be to the body by causing serious complications and death. The ‘bad’ nature of the condition was linked to complications such as blindness, amputations, and impotence, all of which were mentioned by the respondents. In a Ghanaian context, diabetes as a ‘bad’ condition is associated with malevolent spirits such as witchcraft, sorcery and other spiritual powers associated with a poor outcome. In addition, an individual with a so-called ‘bad’ condition, such as diabetes, is seen by Ghanaian people, to be an individual who will not have a long life.

Participant 21 explained why diabetes mellitus is denoted as a ‘bad disease’;

“There are a lot of innocent human beings who get this diabetes, a bad condition, which has so many complications like blindness, and other problems to body organs” (P21)

A further participant lamented on the ‘bad nature’ of diabetes, in terms of its chronicity, and disabling nature, which persists for individuals without hope of a cure. In this sense, diabetes was labelled as a ‘bad disease’ by Ghanaians as it defies cure, resulting in the death of the sufferer:

“Diabetes is a bad disease and once you have that disease it stays with the person who has it. I remember also that diabetes is a chronic and disabling condition and stays with us wherever we go. It has no cure” (P4)

From the patients’ narratives it seems that diabetes is a ‘bad disease’ in the sense that Ghanaians denote such a condition, deriving from spiritual or supernatural forces, is a disabling disease, has a chronic sequel, defies cure, and eventually take the life of the sufferer.

4.5iv. Social meaning of Diabetes as a ‘chronic’ disease (‘Koankoro Yare’)

Most of the participants described diabetes as a chronic disease in terms of its burdensome, persistence and resistance, with participants, that is, patients perceived as having done all that was possible, with condition still persisting with little sign of cure or improvement. In their narratives, respondents represent chronic disease by using a Ghanaian Twi term ‘koankoro yare’. Literally, the term implies a disease which refuses to go away when one fights it. As a researcher the term ‘koankoro’ seems in its pronunciation to bear some resemblance to English word for ‘chronic’. Probably, the Ghanaian Twi word ‘koankoro’ might have taken its meaning and pronunciation from the English word ‘chronic’ since the English colonized Ghana in 1821. The Ghanaian Twi word ‘yare’ means ‘disease’ and so ‘koankoro yare’ may therefore mean ‘chronic disease’ in the English language. Personally, as a Ghanaian, a researcher and a nurse who interacts with different Ghanaian people from all parts of the

country, I have heard people saying that chronic diseases are caused by supernatural powers.

In all, nine (9) respondents mentioned that diabetes is a “koankoro yare”, a chronic disease:

“What I am trying to say is that diabetes is a chronic condition and so if it comes, it comes to stay with the person” (P19)

“No matter what you do to this disease it will always be living with you” (P14)

Others with similar ideas described the chronicity of diabetes mellitus as follows:

“What I mean is that, diabetes is a chronic disease and once I have it, it will not go away from me and the only thing I must do is to make sure I adhere to the dos and don’ts of diabetes care” (P20)

and

“Diabetes is a chronic disease; you have to take medication always. If it is injection, one has to take the injection every day” (P15)

The chronic nature of diabetes mellitus was clearly a concern for participants in this study irrespective of their social backgrounds such as education, employment type as well as religion and general orientation. When seen within the context of ‘being Ghanaian’ whereby the view, expressed by most respondents is that diabetes results from the work of evil spirits and/or mystical powers, whether it is self-inflicted as in the individual bringing ill will upon her/himself, or whether perpetrated by others with malice aforethought, it is clear to see that strategies for health education need also to take account of the view that diabetes is a condition for life. Patients are likely to view self management as a pointless exercise in the absence of understanding how fairly small changes, for example in dietary habits, may produce beneficial result in the short as well as the long term.

4.5v. Diabetes as a Family Disease ('Abusua Yare')

Respondents who mentioned that they had family members living with diabetes described it as a 'family' (familial) disease. The Twi term 'abusua yare' which literally denotes 'family disease' was used by the respondents to mean diabetes mellitus, which seems to signify diabetes as a "family property". Three (3) respondents noted diabetes as a 'family' disease, with the impression that such a disease purely emanated from parents through their genes, and subsequently surfaced within the affected family member.

Participant 18 stated:

"It is a genetic disease, so if your parents have it you can easily have it. I have it and my senior brother also has it. That is why it is called a family disease. My father had it about ten years ago and my mother just recently about six (6) months ago" (P18)

Participant 15 had this to say:

"I know that if you have it in your family, it becomes a family disease and that it means members of the family can easily get the condition. That is they have high probability of getting that condition" (P15)

It would appear that diabetes in an essentially Ghanaian sense, i.e. as a 'family' disease, suggests participants felt families were 'branded' with the condition. Furthermore, this 'branding' with diabetes could extend to entire families. In addition, the individual who suffers the condition is singled out and seen as 'carrying a family burden' that is, diabetes as a 'family disease' as participant 5, a 40 year old female fish seller eloquently mentioned:

"If you have diabetes and people know that your parents or even an extended family member also has the condition, they see you as having a family condition and so you feel bad if people know the condition that you have" (P. 5).

Clearly speaking, it appears that as a family disease, families are identified and recognized in this sense as having the condition as perceived by the participants.

4.5vi. **Diabetes as a Sugary Disease ('Asikyire Yare')**

The respondents used the term 'sugar disease' in their narratives to denote or represent diabetes mellitus. Eleven (11) respondents who described diabetes mellitus commonly used 'asikyire yare' as a 'social expression or meaning' to stand for 'sugar disease' which then becomes a common term in Ghana to represent diabetes mellitus.

Participants 24, a farmer and 14, taxi driver respectively described 'sugar disease' as diabetes mellitus in the following way:

"I know that diabetes is a sugar disease because when you have it the whole body is made up of sugar that is why when you have it the person's urine and all fluids tastes sugar and so that person is not allowed to eat sugar and other sugary foods because that will compound the situation" (P24)

"It is also called sugar disease because when you have it the blood sugar will go up, up to a level, which is not, good for the body and so people begin to urinate a lot" (P14)

The two participants, P.24 and P. 14 are basic school and secondary school leavers respectively but they have opinion that diabetes is a sugar disease perhaps based on what they might have heard from other persons.

Participant 22 on the other hand, said that diabetes is a sugar disease because of too much sugar intake:

"It is a sugar disease because if you eat too much sugar you can get diabetes, through your diet or the sugar that you eat if it is too much then, through that you get diabetes. That is why many people call it sugar disease" (P22)

The term 'asikyire yare' (sugar disease) was used simultaneously by the respondents in this study to mean 'asikafo yare' (disease of the wealthy). In my interactions as a nurse with the general populace with diabetes and even those without the condition in this locality of Ghana, the term "asikyire yare" (sugar disease) or "asikafo yare" is used to denote diabetes mellitus. "Asikafo yare" (disease of the wealthy) therefore becomes a social phrase or meaning to represent diabetes mellitus. As noted already, "asikafo yare" (disease of the wealthy), or

diabetes mellitus was perceived as a disease of the wealthy in society, which defines the origin of the social meaning for diabetes in this case.

Respondents described their stories in the following ways:

“It is rich people’s disease because they think the chronic nature of the condition requires somebody who has money to manage the condition every day. When there is high sugar level in blood then it is diabetes” (P13)

“With diabetes if you do not have money you cannot treat yourself that is why it is called ‘asikafo yare’ (disease of the wealthy)” (P27)

P. 27 is a teacher by profession; also used ‘asikafo yare’ to denote diabetes mellitus. This may explain the extent to which the term is used by other individuals even with high educational background.

However, participant 16 stated:

“I know that people who are fat get so many diseases including diabetes” (P16)

It appears that P.16 who is a police officer at least knows that lifestyle is a risk factor for the development of diabetes mellitus, however, possibly the physiological processes involved in the development of diabetes mellitus is not well understood by the officer, probably just like other local people and diabetics who use the term to describe diabetes mellitus but do not know how it occurs.

4.5vii. Diabetes as a Disease for the ‘cursed’ in Society (‘Duabo Yare’)

Six (6) respondents described diabetes as a condition for individuals who have been cursed in society because of its devastating nature, which can cause lot of problems to people who have been afflicted with it spiritually, as a curse, likely to affect the person in all spheres of life.

The respondents used the term ‘duabo yare’, which stands for ‘disease for the cursed’ to mean diabetes.

P26 had this to say:

“Diabetes is a ‘cursed disease’ because if you have it you cannot enjoy life due to so many restrictions and its devastating nature” (P26)

Participant 4 mentioned:

“I know that diabetes is attributed to a whole lot of causes. It is a condition which is difficult to live with it so it is cursed disease because if you have it, it has no treatment, so you have to manage it every day to control it” (P4)

The two participants, P. 26 and P. 4 are basic school leavers with probably limited educational insight in terms of what diabetes means but to them it is a cursed disease because it defies cure and has lifelong sequel and complications.

4.5viii. Diabetes as a Bought Disease (‘Nto Yare’)

Five (5) respondents used an expression ‘nto yare’ to mean or represent a ‘bought disease’ whereby persons such as family members or significant others or even neighbours were perceived to have ‘sold’ diabetes to the affected person in Ghanaian context. In this sense the victim or the sufferer is perceived to have also bought the disease from the envious person in an open market place in a mystical or spiritual way. Similarly, respondents also noted that diabetes may be contracted ‘spiritually’ through food eaten, in that the envious person, in a spiritual way, gives the disease to the victim through food:

“At times they sell it to you in the market when you are buying something. Somebody can give a gift and out of that you can get the disease from it. It can be any form of

disease but usually a chronic disease, which is incurable like diabetes, hypertension or even stroke” (P16)

Participant 14 had this to say in relation to diabetes as a ‘bought disease’;

“At times they sell diabetes to you in the market when you are buying something through mystical powers, and so it becomes a bought disease. That is what other people do and I think in my case for instance probably they sold to me in the course of drinking alcohol with my friends” (P14)

The statements from the two respondents clearly demonstrate that to some extent both the educated and those with limited education perceive alike in terms of the beliefs around diabetes mellitus. P. 16 is a police officer with some level of education as compared with the P.14 who is a driver but both share similar perceptions on social meanings of diabetes of diabetes as a ‘bought disease’.

The previous section looked at the social meanings ascribed to diabetes mellitus by Ghanaian patients diagnosed with type 2 diabetes mellitus. The meanings patients, at least the participants in this study ascribed to diabetes offer lessons for understanding the place of culture in understanding health beliefs as a precursor to developing strategies for health education. These culturally derived health beliefs represent a body of knowledge that could serve as the basis for teaching health professionals such as nurses, doctors and pharmacists about the social context of diabetes in Ghana.

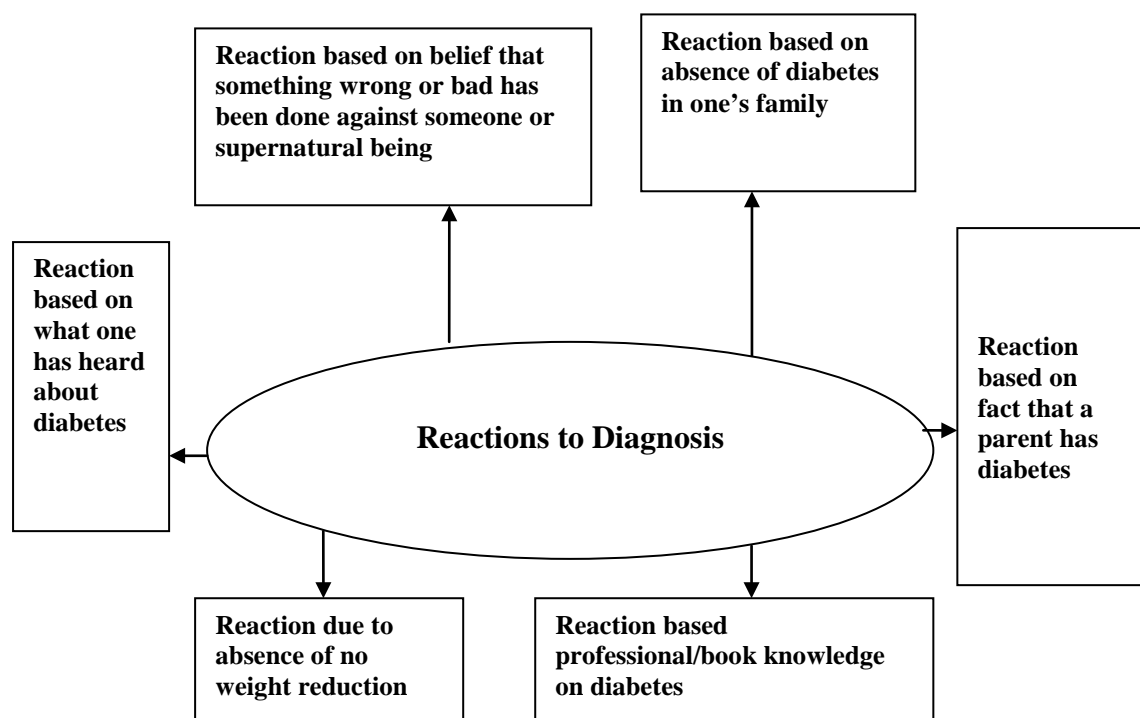
The following section considers patients’ reactions to diagnosis and resolution of reactions to diagnosis.

4.6 Theme (3) - Patients' Reactions to Diagnosis of Diabetes Mellitus and Resolution

4.6i. Introduction

This section provides an account of the reactions from the participants to the diagnosis of diabetes mellitus. Resolution to the diagnosis of diabetes is considered. Findings from this study indicate an evolving process of social behavior, characterized by patients' reactions to the diagnosis during the initial stages of the conditions and how they subsequently acted to resolve reactions to the diagnosis in individual ways. Six reactions to diagnosis were identified based on (1) previous and present interactions with family members with diabetes mellitus; (2) professional/book knowledge about diabetes, (3) absence of weight reduction, (4) belief that something 'wrong' has been done by the participant, (5) prior knowledge about diabetes, and (6) the absence of diabetes in families. Figure 4 below shows patients' reactions to diagnosis;

FIGURE 4 - REACTION TO DIAGNOSIS



4.6ii. Reaction to diagnosis - a parent with diabetes - 'it's their fault'

Upon diagnosis two (2) participants categorically stated they were not worried about their diagnosis because their parents have the condition. According to these participants diabetes is a hereditary disease, which children can inherit from parents. Therefore they were not surprised to have it. According to one participant who had received a diagnosis of diabetes the concern then became one of who would take his parents to hospital for treatment, since all the family members were now diagnosed.

"I was not worried so much because my father has diabetes. So when I was told that I have diabetes, it was no wonder to me, so I decided to cope with it because I know that it is a chronic disease once you have it, it is for ever so the only thing I have to do is to accept it and live with it" (P26)

"My father is old with diabetes and my mother too recently has been diagnosed of having the same disease. If all their children are kicked to the ground with this disease, how can we care for our old parents, that is my concern" (P18)

It was apparent from the reaction to diagnosis expressed here, that participants lacked concern for themselves, which stemmed from personal experience and interactions with family members living with diabetes. Living with diabetes was not new to most participants.

Expressions used to explain their reaction include:

"My parents have diabetes and so it is not new to me". 'Diabetes is a family disease, so anyone in the family can have it, so I was not worried and depressed when I was diagnosed" (P18)

However, one respondent, whose sister was diagnosed with diabetes and whose father had died from diabetes appeared depressed and worried about his diagnosis.

He remarked in a rather sad tone:

“I never would have imagined that I would be diagnosed with diabetes though my father died from it and my sister has it. After finding out that I have diabetes, I was depressed and worried about my health and also about my future life” (P20)

Clearly, while some participants were not surprised by a diagnosis of diabetes, for reasons that family members had the disease, therefore they had experience of it, they had concerns. For the most part these related to caring for family members and how this would be sustained now that they had also succumbed to the condition, and to a lesser extent for their own health and well being, given what they knew of the condition and its trajectory.

Their concerns with regards to reactions to diagnosis were purely based on their experiences with the condition as some family members lived with it. For instance, P.20 is an electrical engineer whose parents lived with the condition but was so worried as compared to P.26 and P.18, basic school leaver and a secondary school leaver respectively who were not worried about getting the condition.

4.6iii - Reaction to diagnosis - belief of wrong doing - ‘it’s my fault’

This study has revealed diabetes sufferers are often ‘blamed’ for causing their predicament due to their own or others so-called mystical powers. There is a belief in Ghana that if the ‘victim’, so to speak, has done something ‘bad’ against the gods or the ancestors, diabetes is inflicted upon people as a punishment, in the form of a serious disease or disability. In this Ghanaian study, two (2) respondents expressed this belief in reaction to diagnosis. The first of these appeared worried and angry with everybody following his diagnosis, as he thought it was due to some wrongdoing on his part, in the past:

“ I refused the diagnosis but later I decided to get on with treatment, I was angry with everybody at home and myself and I thought I have done something wrong that is why I have this disease” (9)

This participant reacted as though he had done something `bad` in the past to cause the disease to be visited upon him. This `view` as to the diagnosis caused a reaction of angry with the world and every one in it.

In contrast participant 19 said:

“I did not understand why I should have this disease at this time that I have been installed as a queen mother. All my hopes were down and did not believe the diagnosis because as a newly installed queen mother in my community all my plans would not yield any positive outcome. I was thinking about how to combine my personal care with the stool or institutional responsibilities” (P19)

It was apparent from participant 19 that her position in the community as `queen mother` had resulted in `somebody` giving the condition to her, through spiritual means. In her view, her condition has a spiritual cause because she did not acquire the condition until after her installation as a `queen mother` in her community. This reminds us of the causes of diabetes attributed by participants, as relating to mystical powers, for example family or friend or indeed anybody who does not like the individual in some way and therefore wishes to thwart efforts for self-development on the part of those individuals, and thereby inflicts `crippling` diabetes upon them.

4.6iv. - Reaction to diagnosis - professional/lay knowledge of diabetes - `I’ve seen what’s coming`

One (1) participant mentioned that due to her professional background, she knew what it meant to have diabetes and therefore she was depressed and unhappy to learn she had the condition:

“It was like I was dreaming, I could not believe the diagnosis because as a nurse I know what diabetes means, lot of complications so it was I know what will happen to me in future. That very day I could not eat, because I know diabetes at the end of it all, I will start getting complications so I started thinking about those things and they used to scare me so much” (P1)

This respondent, due to a professional background as a nurse, would have had interactions with diabetic patients in the course of her professional activities and would fully understand the difficulties, complications and poor patient outcomes associated with the condition. On being newly diagnosed experience with diabetic patients would have instilled fear and dread of a similar poor illness journey and poor outcome.

A second respondent, not a health professional, said that he had read many books about diabetes and therefore knew the complications associated with of the condition:

“I have read about it so much that I can tell you that it is a very, very bad disease. I have seen somebody with amputation due to diabetes so it is something I have read and I have seen myself so diabetes is not a common disease that we should play with. Once you know something about this disabling disease you have to fear it in your life”
(27)

P.27 is a professional teacher and possibly her educational background might have influenced her to read around the condition and also based on what she has observed about those who have the condition, such as those with amputations due to diabetes mellitus. Clearly speaking, one’s experience and professional knowledge about a disease condition may influence peoples’ reactions to the disease when they have it.

4.6v. - Reaction to diagnosis - knowledge of diabetes mellitus - ‘I know what’s coming’

Eighteen (18) respondents reacted to a diagnosis of diabetes, which was clearly informed by prior or existing knowledge of the condition, especially in relation to the inherent difficulties associated with the disease.

The respondents shared their knowledge of complications associated with living with diabetes, treatment which is time consuming, costly treatment, diabetes as an age related condition, a chronic disease, diabetes meaning the end of one’s life.

Participant 23 wept bitterly because of the complications she thought were associated with diabetes mellitus, its chronicity and the high cost of treatment:

“I wept bitterly when I got to hear about the diagnosis because of the fear of complications. If you have it people will say that you have gotten rich man’s disease because it is chronic and you have to battle it all your life so if you are not rich person you cannot manage it because you need money to manage its high cost of treatment””(P23)

Other participants also mentioned that the onset of diabetes takes all the time of the affected person because one needs to plan glucose checks related to the management of the condition.

One patient’s reaction to diagnosis was intensified when he recalled the complications people known to him had suffered as a consequence of diabetes:

“ I have heard already about this disease that, it is a chronic and disabling disease, which can cause lot of serious complications to people who have it so I was down that very day but with God I have been able to survive this disease since the time I was diagnosed two (2) months ago” (P14)

Participant 8 expressed his sentiments in terms of food restrictions associated with diabetes mellitus, for reasons that at parties he may not be able to eat certain foods. His reaction was grounded on the clinical manifestations present at the time of diagnosis, in that he had difficulty with vision and was having to take medication for life. He also expressed the view that at some point he would be blighted by sexual dysfunction, which he had heard was a common complication of diabetes. He therefore reacted with distress to his diagnosis:

“Food restrictions may not help me, if I have a party to attend there may be restrictions in my life because of type of food I have to eat over there. A young man who has just completed school, preparing to enjoy life and this has happened to me so I am not happy at all. I have to take medications for the rest of my life, so it was not easy for me. Sexually, I can become weak” (P8)

From participants’ perspectives in this study, one can infer that feelings of the disease` taking control` over individual lives was a major concern irrespective of their social and professional background. Feelings expressed at the time of diagnosis ranged from being scared, shocked, worried, sad, devastated, and confused. The respondents expressed strong

negative feelings, sometimes combined with denial. These feelings, following diagnosis portrayed a strongly negative image of diabetes, with the condition clearly perceived as a threat to health and well-being. Participants feared the loss of health, complications, and ultimately death. Therefore there was no doubt that the diagnosis of a so-called 'life threatening disease i.e., diabetes had devastating effects on the quality of life.

4.6vi. - Reaction to diagnosis - absence of weight reduction - 'it can't be true'

One (1) participant believed patients diagnosed with diabetes mellitus would have 'grown lean', in other words would have lost weight. For this participant, while some initial weight loss occurred the participant did not 'grow lean'. Therefore, this respondent could not believe the diagnosis:

"I did not believe it because initially I had not reduced in weight, when I looked at my body, so I did not believe that. I did not believe the diagnosis because I never thought of that in my life due to my body weight and bodily impression" (P5)

In my interactions as a nurse with many patients in Ghana including diabetics, it is apparent that individuals become worried when they reduce in weight for fear of being stigmatized as having HIV/AIDS. As a nurse who interacts with patients as well as other clients in the community, I have observed that this perception runs through all social classes that we have in Ghana, either educated or those with limited education, or even health professionals themselves. At times, individuals are asked why they have reduced in weight or fingers are pointed at them and in some situations people are branded as experiencing displeasure as a result of owing someone amount of money or having night mares due to social or psychological problems and so forth.

4.6vii. - Reaction to diagnosis - absence of diabetes in families – `why this, why now, why me`

Two (2) respondents held the view that only people who have diabetes in their families, that is, those destined to acquire the condition should be concerned about acquiring diabetes.

However, it was noted that anyone can acquire diabetes mellitus including overweight people:

“Initially I thought that it is only people who have diabetes in their families who can get it. Anybody can get this condition. People who are fat can also get the condition”
(P3)

Participant 2 had responded to a diagnosis in a frustrated manner:

“I was totally out of mind. I could not think at that moment and I received the information as if it was flash and so it took me some time before I could come to myself” (P2)

Their reactions to diagnosis were merely situational, based on their personal understanding and experiences living with the condition, rather than religious, age, sex, or educational level determined. This is because, their narratives regarding their reactions to diagnosis were directly related to their unique personal experiences as well as how they understood the condition and their general perception around diabetes mellitus.

The expressed views and reactions to diagnosis were partly overlain with culturally derived attitudes regarding the role of spirits, gods, and mystical powers; the idea that past misdemeanours or current ill will was responsible, either wholly or in part, for the `infliction` of diabetes upon the individual.

In summary, we have examined the various reactions shown by participants during diagnosis. Their reactions were defined based on unique experiences of the research participants living with diabetes, for instance reactions based on prior knowledge of diabetes.

It seems that the reactions by the type 2 diabetics have not been identified by the literature, so it “adds to new knowledge on the person’s reaction to diagnosis of type 2 diabetes” as these type of reactions are specific to Ghanaian diabetics and not any other people elsewhere.

The next section presents how the participant’s arrived at a point of resolution to the diagnosis and subsequently regained control over their lives.

4.6viii. - Resolution – ‘coping and moving on’

In the midst of reaction to diagnosis, which included feelings of fear, depression, devastation, loss of hope, anxiety, sadness, concerns around end of life, and in some cases refusal to accept diagnosis, the need to ‘move on’ or ‘resolve’ the initial feelings was strongly expressed within the participants narratives. Reasons for this included the need to remain healthy for as long as possible in order to help family members who also had diabetes, or for many participants in order to remain healthy to ‘pay for’ a long and costly illness. When asked ‘what now’ or ‘what next’ participants shared their thoughts around the next stage, that is, beyond diagnosis as they moved toward resolution and into the ‘coping with’ next stage.

During the process of resolution participants variously described a process similar to grieving. However, this was by no means consistent across the group, appearing to be an individualized reaction and resolution, rather than a recognizable phenomenon within all participants. Similarly, some but not all participants engaged in ‘blaming, confirming, justifying and accepting the diagnosis as a feature in the process of resolution. Four (4) respondents blamed ‘themselves’ due to the fact that, more than likely, the disease was caused by poor or unhealthy lifestyle. In my interaction with participant 3, for instance, it was identified that he was engaged in chronic consumption of alcohol as he used to drink with family members such as his brothers and other people. He also continued to engage in

excessive consumption of alcohol and fat when he lived in Nigeria as a teacher in the past.

Therefore participant 3 blamed himself for excessive alcohol and fat intake, which he understood through reading about the condition and recognizing causative factors:

“I started wayward life and my brothers are all drunkards, so I was born into that company, so I also started drinking. Secondly, I stayed in Nigeria and you know all the alcohol is available in Nigeria. I was taking enough of fat, protein and all the food, which were available. So I believe that these factors contributed to the problem that I have. I have to cope with it. Since I am now aware and more knowledgeable about diabetes I no longer smoke or drink and I have accepted the condition as part of me now” (P3)

Clearly speaking we can infer that the social upbringing of this participant contributed to his frequent alcohol consumption which in his later days at age 64 years developed type 2 diabetes mellitus.

Participant 15 similarly blamed himself for causing his condition due to alcoholism and a high fat diet which are linked to his social orientation and upbringing:

“I do remember that some time back I was drinking alcohol, so at a point in time I began to blame myself because alcohol is one of the causes of diabetes. I sat down pondered over it and decided to look for interventions both at the hospital and also through mystical way but whatever the cause I have accepted this condition to be part of me and I have to put in much effort to contain it” (P15)

In contrast, participant 25 was annoyed with himself, but also with anybody who came his way after the diagnosis. However, in time and with educational input from nurses, and counselling from friends; and following hospital instructions he later came to accept the condition for what it was, that is, a part of his `new` body, which he needed to come to terms with:

“Even initially if somebody wanted to speak to me I became annoyed because I was not happy with my life due to diabetes so I could easily become annoyed and frustrated and depressed, denying the condition and at time blaming myself for probably causing the condition myself due a lifestyle or what, so it was not easy at all at the beginning of the diagnosis. Now I have accepted it to be part of me. It took me some time to be pondering over it before I finally became used to all these frustrations of the diagnosis” (P25)

Participant 23 reflected on life, remembering that excessive intake of sugar and subsequent weight might have caused the condition. However, probably the devil has some part to play! Whatever the cause, the respondent accepted the condition, that is, resolution was achieved:

“ When I completed school too I gained lot of weight and so that might have contributed to my condition so I began to tell myself. So now I have accepted that probably that may be the cause of the condition. But I was telling you the devil looks for good avenues in order to afflict people. May be the devil in my family decided to use my weight as a factor to base on that to disturb me in terms of my health or even through food to give this disease to me” (P23)

Other respondents accepted a diagnosis once the initial frustrations, stigmatizations, anger, fear, depression, and worries had been navigated. However, the next stage involved a process of learning about the condition in order to understand the `behaviour of diabetes` and to plan for it. Respondents pondered over the diagnosis for some considerable time, which has implications for the timeliness of health education interventions as patients will proceed through resolution at an individual pace. These patients identified diabetes as a chronic disease with disabling problems, which they subsequently chose to accept it and treat as effectively as they knew how, in order to avoid complications they perceived as inevitable. Over time participants indicated they were reconciled with the diagnosis and were able to accept the condition as part of the body. This resolution and reconciliation often followed a period of `doing battle` with the diagnosis. For example, participant 16 initially found it difficult to accept the condition because of the perception of stigma associated with diabetes and so tried to avoid hearing

about the condition. However, after counselling from the community health nurses, he came to accept the condition;

“Initially it was difficult to accept this condition because of stigmatisation associated with it so I planned to avoid hearing about this condition, I planned to ignore the diagnosis but upon counselling from the community health nurses and upon my own personal advice and upon all the angry about the condition I accepted the diagnosis” (P16)

Similarly, three (3) respondents, after diagnosis, became worried, and did not believe the diagnosis and pondered over it for some considerable time and requested to have the diagnosis confirmed, that is, a second opinion, from a private hospital. However on receiving education from nurses, doctors’ advice and counseling at the hospital they subsequently came to accept the diagnosis, and were better able to follow a plan of treatment. For example, P 20 had this to say:

“When I was diagnosed, the doctor asked me to attend the diabetes education class, which is part of the clinic schedules, and actually it has been of help to me. They give counselling at the class and that has actually helped me to accept this condition and to adjust to it after all the thoughts and self-arguments” (P20)

In contrast, participant 22 held the view that the devil or someone had inflicted the disease upon her, therefore she had to find ways and means to live with this condition, which involved resorting to spiritual traditional healers to identify and `rid her` of the devil deemed to be causing her disease:

“I said to myself that even if it is a devil which has brought this disease to me, I need to take it like that and find ways and means of how to live with this chronic condition but I decided to look for the one who has brought this disease to me and so I go to prayer camps and traditional religious healers for them to help me identify devil for me” (P22)

For participant 11, after diagnosis, other people provided an abundance of misinformation about diabetes including causes and treatment options. As a `Ghanaian` first and foremost, while being, in this case the researcher, insight into the `worldview` and `mind-set`, in other words what it is to `be Ghanaian` facilitated an understanding of the pressure applied to the participants from close family members relating to where treatment should be sought. In that if disease was perceived to be `spiritually acquired` as opposed to be `hospital acquired`, this subsequently demanded a `spiritual intervention`;

“All sorts of beliefs are associated with the condition and so in fact at the beginning I nearly stopped attending the clinic because of misinformation about causes of the condition and treatment but through the diabetic patients association I was able to overcome such misinformation” (P11)

Four (4) suggested in spite of the doctor’s diagnosis through God’s interventions they were able to come to terms with the diagnosis. These patients feared the condition because of the complications they had of. However, the view that God is the Supreme Being and through Him all things are possible, led them to believe that God could and would heal their diabetes. The respondents communicated their sentiments to God in prayers, requesting Heavenly support, at that critical point in their lives as participant 9 had a conviction that God will not give him a condition he cannot bear. Therefore he could safely put trust in God to fight the condition on his behalf:

“I was thinking about this condition too much but upon having a second thought or even a third thought about it I told myself that God will not give a condition I cannot handle so I accepted it in good faith in order to have total control over this disease” (P9)

For P.9 it was no wonder for this participant to place his trust in God. This is because; he was a pastor in one of the Christian groupings, so it was likely that he would put his trust in God for courage to manage the condition and to live with it.

Similarly, participant 13, also a Christian prayed to God for support, adding that God should help him to obey all the instructions related to the condition about how to care for himself:

“I said that God should help me to contain the disease and also to help me obey all the instructions about the disease” (P13)

It would appear that the two participants P.9 and P.13 all have Christian background which may suggest their affiliation and love for God’s healing power, therefore all of them succumb to God for protection and support as we have seen in their narratives above.

In conclusion, this section has concentrated on participants’ reactions to and subsequent resolution of a diagnosis of diabetes mellitus type 2. The act of resolving was followed by reconciliation, albeit at an individual pace and dependent upon the individual’s understanding and belief as to the cause of the condition. The implications of this for health educators is clear, in that account must be taken of the individual’s illness journey from initial reaction to diagnosis, followed by resolving and reconciliation. In order to provide individually appropriate and tailored treatment plans, which take account of culturally determined beliefs about the causes of health and illness in the Ghanaian context, health educators and healthcare professionals need to understand the complex relationship between health beliefs and self-management of ill health in order to avoid over or underplaying cultural beliefs, a priori knowledge and subsequent treatment choices.

Now the following section considers treatment choices available to the participants following diagnosis and how decisions regarding treatment were arrived at. Basically, four treatment options were identified by the participants as appropriate or convenient for them. These were patients who focused on biomedical treatment, spiritual treatment only, those who combined biomedicine and spiritual treatment and finally those who started with the spiritual treatment and later switched to the biomedicine. Let us look at them in details.

4.7 Theme (4) – Health Seeking Behavior of Patients with Diabetes Mellitus

4.7i Introduction

This section describes the various treatment options and those subsequently chosen by the respondents following their diagnosis. Questions regarding initial attempts to treat the condition after diagnosis led to mixed responses. Four (4) treatment option regimes emerged from the data. The participants preferred to use one or two of these treatment options. The first option involved recourse to biomedical therapy at the hospital. A second option was to seek biomedical treatment followed by spiritual treatment, a third option involved a combination of both medical and spiritual actions/herbal treatment/faith healing concurrently, with a fourth option, usually chosen by patients who had been and diagnosed initially at faith healing/prayer camps or herbalists' camps but who later found their way to the hospital for diagnosis and treatment.

In a Ghanaian context unwell people experience pressure from close family members, friends and other significant others as to where treatment should be sought, especially when the condition is perceived to be a chronic disease, for example hypertension, diabetes, and epilepsy. In some cases family members and friends or close allies inform the sick affected

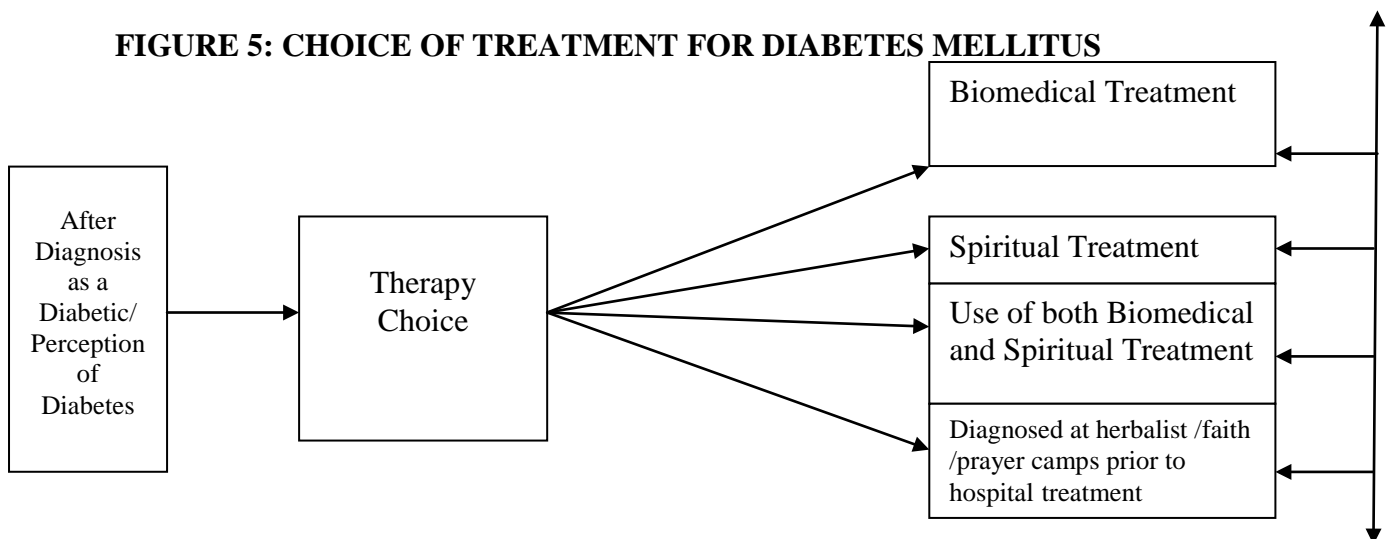
individual that his or her disease is not a ‘hospital disease’ but rather ‘efie yare’, a term which literally means ‘home disease’. ‘Home diseases’ are perceived to be caused through spiritual means and treatments for such conditions involve spiritual activities including invocations.

Ghanaian people equally value the four options for treatment described here. However, it is the nature of the disease, which may lead to certain treatment choices being made. The diagram below, (figure 5) shows therapy choice for diabetes mellitus following diagnosis.

From the diagram, (figure 5), the arrows point to treatment choices available to the patients specifically based on the perception of the diabetic as to the cause of the condition. As we have noted above, there are four options, from top down: from those who opted for biomedical treatment to those diagnosed at herbalist/faith/prayer camps.

The arrows at the right side of the diagram pointing to the left side, up or down indicate that, the patient can switch to any of the four treatment options in course of treatment of the condition based on potency of these treatment options. For instance if a patient is not satisfied with the treatments at the biomedical centre, the patient can switch to spiritual aspect of treatment and vice versa.

FIGURE 5: CHOICE OF TREATMENT FOR DIABETES MELLITUS



4.7ii. Biomedical therapy at the hospital.

In all, sixteen (16) respondents mentioned that after their diagnosis they decided to opt for treatment at the hospital. These patients feared complications would develop, therefore they decided to consult healthcare staff at the hospital for diabetic review in the knowledge they could also see the nurses and the doctors at any time should they become ill in addition to visits to the hospital on normal clinic days;

“Following the diagnosis I have been going to the hospital for review every two weeks to see the doctors and nurses. Before I see the doctor, I go to the laboratory to check blood sugar level” (P4)

The assurance and advice participants received from the hospital staff appeared to motivate them to go to hospital for treatment. However, some participants were of the view that hospital treatment was preferable to treatment from a herbalist (non-hospital medicine) as herbalists were considered to have no standard way of preparing drugs. Due to the fact that patients are required to undergo laboratory tests and show blood results to the doctor before treatment starts the perception that hospital treatment is the best option;

“I use medical treatment for my diabetes because if you know how the herbalists are causing problems to innocent patients, you will never believe. I have heard it myself and I have seen people with diabetes who have had complications due to treatment at other places aside the” P (27)

Participant 25 explains the benefits derived from adhering to hospital treatment, such as education on the `dos and don'ts` for diabetic patients, for example dietary advice, and the need to exercise regularly:

“I have been seeing my doctor almost every two weeks at the hospital for review. The nurses also take that opportunity to educate me on the condition about what I should do and what I should not do, the type of food that I should eat and also the exercise,

which is good for me. I have been following these instructions since my diagnosis about three months now” (P25)

Ironically and interestingly, one (1) of the sixteen (16) respondents who opted for biomedical treatment at the hospital was a herbalist. As a herbalist, he could not treat himself but rather preferred hospital treatment. When interacting with him he stated in the local Twi language that ‘Osafo nsa ne ho yare’ which literally means that a ‘doctor cannot treat himself but needs to be treated by another person’:

“After the diagnosis I have been going to the hospital for review every two weeks to see the doctors and nurses. In the morning before I see the doctor, I go to the laboratory to check blood sugar level and show results to the doctor before he orders something for me. I am also using diet to control the sugar level. ‘Osafo nsa ne ho yare” (P13)

One participant mentioned the importance of following doctors and nurses instructions closely to avoid complications. In addition, by so doing, a complete cure might be had:

“The nurses and the doctors also teach us the type of food that we should take and that is helping me. I know that diabetes is associated with whole lot of complications and these are the problems I need to prevent by adhering to the nurses’ and the doctors’ advice when I go to hospital for treatment” (P5)

Comparative analysis show that participants’ demographic characteristics did not have effect on the choice of the biomedical treatment in this situation as for instance educational background either educated or not educated, type of employment either a farmer or business person, as well as religious denomination did not influences the choice of medical treatment. For instance participants with diverse backgrounds such as a nurse, accounts clerk with good educational backgrounds, a business woman with basic educational level, and even a herbalist by profession, a student as well as a teacher and a radio broadcaster opted for medical

treatment at the hospital based on their perceived beliefs regarding benefits of such treatment, such as capable to prevent complications with the use of biomedical treatment for diabetes.

4.7 iii. Biomedical to spiritual treatment/herbalist, prayer and faith healing

Three (3) participants decided to seek out spiritualists or herbalists and faith/prayer healing centres as a treatment option, after diagnosis at the hospital. Participants perceived herbalists or faith healers to have `second eyes` enabling them to see causes of diabetes. On the other hand, other participants thought that medical treatment would be too costly. These participants had not registered with the National Health Insurance scheme:

“In fact, initially when I was diagnosed I went to Goka to see a spiritualist to cure the condition. When the doctor told me that I have diabetes, the next day I went to see that man at Goka. On arrival he asked me to fast for three days with the aim of casting out the demonic spirit, which was causing the disease. I fasted for two days and I realised that all my symptoms and signs were going up. I had in mind that at the hospital it would cost too much. He did lot of incantations and told me who was causing the disease to me” (P14)

A possible factor that might have influenced participant 14 to opt for spiritual treatment was the fact that he had not registered for the national health insurance scheme, therefore staying at the hospital for treatment would be costly as he had to pay for the hospital services himself. In addition, being an ordinary driver in Ghana, income opportunities may be small, hence that might have influenced his decision to opt for spiritual as well as herbalist treatments which is cheaper than the biomedical treatment.

However, at such places numerous incantations were performed by the spiritualist/herbalist/faith healer. Some patients were asked to fast in anticipation of receiving good treatment or cure. Additionally, in most cases patients’ conditions deteriorated, resulting in recourse to hospital treatment.

A participant with first a degree from a university as an electrical engineer, when asked what he remembered most about living with diabetes, the participant responded this way:

“In fact when I was diagnosed at first at the hospital, I went to a herbalist and I was also frequenting myself at the prayer camps run by spiritualist with the aim to get a cure for the condition but this did not help me in any way. At a point in time I was asked to fast at Goka. I nearly died, so I was rushed to a Hospital where I learnt I was pronounced dead but upon several medical interventions I was brought to consciousness. Since that time I have stopped going to such people for any help but I have concentrated on medical help at the hospital” (P20)

I presume that as an electrical engineer in Ghana, his income level may be high as compared with someone who is a farmer in the same locality; however the nature of his employment as well as educational background appears not to have influenced his choice of treatment initially after diagnosis.

The respondents sought recourse to prayer camps, faith healers, and herbalists, with the aim of receiving a cure. However, the result was often less than beneficial with patients often developing serious complications and in some cases coming close to death.

It seems to me that the individual decisions to opt for spiritual as well as herbal treatment following diagnosis at the hospital as we have noted is basically based on individual decisions partially due to cultural perceptions regarding the cause of the condition and again probably due to high cost of treatment using biomedical management protocols.

4.7iv. Combining medical and spiritual treatment

Five (5) respondents believed spiritual healing is meant to ward off any evil spirit involved in the cause of the diabetes; therefore it was advisable to consult with spiritual healers.

However, in addition if the cause was attributed to genetics or lifestyle then it was considered best to include medical care. In essence, it appeared that for some patients at least a

combination of treatment options provided insurance against any one treatment option that was seen not to be working. This was what 44 year old fire service personnel had to say:

“Now I am combining both the hospital treatment and the spiritual treatment for the condition. The spiritualist treatment is usually good for such situations but the hospital drugs only takes care of situations where the condition is caused by any of the genetic problem or where it suspected to be caused by lifestyle factor” (P15)

To participant 23, the treatment at the hospital was the best option in that the doctors were able to accurately calculate the amount of drug that was required. On the other hand the traditional herbalist was seen to give drugs arbitrarily, calling into question the accuracy of dosage. However traditional healers are able to find the cause of the disease. It was apparent that this respondent visited the spiritualist for protection from evil spirits viewed as having the ability to cause further problems:

“In fact me, I started going to a traditional spiritual healer for intervention, and to identify the one who is causing this disease to me. I have been able to identify the person so I am not in good terms with that person. But I have not stopped going to the hospital for treatment. I am using both treatments to cure the condition” (P23)

In contrast, participant 3 noted that the choice of treatment for diabetes depends on the pressure one receives from community members, which serves to persuade the patient to opt for a particular treatment type:

“If you have diabetes everybody will be telling you what you have to do. Some will tell you to go to hospital for treatment. Others will also tell you to see somebody who will help you spiritually to cure the disease. I am combining the two” (P3)

Meanwhile, participant 26, seamstress by profession explained that treatment at the hospital is good but the best way to control diabetes mellitus is to combine spiritual and medical

treatments because traditional ways of treating ill health and disease has been incorporated into national health care policy. Therefore the best way to treat chronic conditions is to combine therapies.

“Treatment at the hospital is good but if you want to control the disease in the best way then you need to combine both treatments because even now they have added the traditional way of treating conditions under the national health care policy” (P26)

The backgrounds of the five participants such as their educational status, employment, age and as well as their religious affiliation and length of diagnosis did not have any influence on their choice of treatment in terms of combination of both biomedicine and spiritual treatment. Their choices of such treatment was merely based on individual experiences and perceptions regarding the efficiency of treatment option to be able to deal with the condition as well as due to pressures from the external family members to go for a particular treatment.

4.7v Diagnosis at faith healing/prayer/herbalist camps prior to hospital treatment

Additionally, three (3) respondents suggested that during initial stages of the condition, they had attended a faith healing/prayer camp or visited a herbalist for diagnosis and treatment. Subsequently, when they realised there was no improvements in their conditions, they abandoned this form of treatment in favour of hospital treatment for further investigations and management. At the hospital confirmation of diabetes was received. In response to the question of how participant 10, a 27 year old trader, had been living with the condition he responded:

“I used to attend prayer meetings at a place. Some people also do fasting at that place but to me the nature of the condition will not allow me to fast. I always pray that if it is somebody who has given this disease to me, God should have mercy for me and take the disease away from me but later there was no improvement so I decided to go to

hospital for attention. If you listen to Doctors and nurses too there will be no problem for you. If I listen to their instructions I think it will be ok and there will be no complications” (P10)

At prayer camps, according to participants, they were asked to fast, pray, eat certain herbal preparations and through prayers and incantation, they were told that a family member had caused the disease and therefore certain rituals needed to be performed before they would be made well.

With respect to what participants did at prayer camp participant 16, a 49 year old male police officer, reported being asked to fast and to pray:

“Over there, there are a lot of patients and we were assigned to into groups with a leader who is a staff at that place. Instructions are given by spiritualist for them to carry out these instructions. These instructions are the type of treatments that patients are to follow. In fact things were not better for me so I decided to go to hospital for better treatment” (P16)

Subsequently at the hospital the respondent claimed:

“The doctor asked me to do so many laboratory investigations. They took my blood for the test. Later when the results were ready I was asked to see the doctor with the result who informed me that I have diabetes. He prescribed some drugs for me and asked me to report every two weeks for review but before that the doctor told me to see the nurse in charge of the clinic before going home” (P16)

In a similar way participant 8, a 48 year old university graduate teacher, believed prayer and other spiritual interventions would help. However nothing good appeared to come out of that treatment:

“If you remember initially I told you that I was receiving herbal medications from a certain woman. Later she told me that there is spiritual component of my disease, we did so many things but it did not help me, rather the condition was deteriorating” (P8)

It was apparent from the respondents that they might have probably wasted a great deal of time at faith/prayer/ herbalists camps with very little return on the investment of time and energy in seeking support and relief following diagnosis. This calls for proper educational programmes for people who live with diabetes in order to avoid development of complications due to delays in appropriate management of their conditions as a direct result of inappropriate treatment or advice from spiritual traditional healers/faith or prayer healers and herbalists.

Again, participants' backgrounds did not show any meaningful direction in terms of their choice of treatment options in this regard. Irrespective of their backgrounds and orientation, participants' backgrounds such those with good educational background, like the graduate teacher, P.8 and the police officer, P.16 reacted the same way like the trader, P.10 and opted for initial diagnosis and treatment at the spiritualist camp before they left to the hospital for further management when it was realised that treatment at the spiritualist or herbalist camp was problematic.

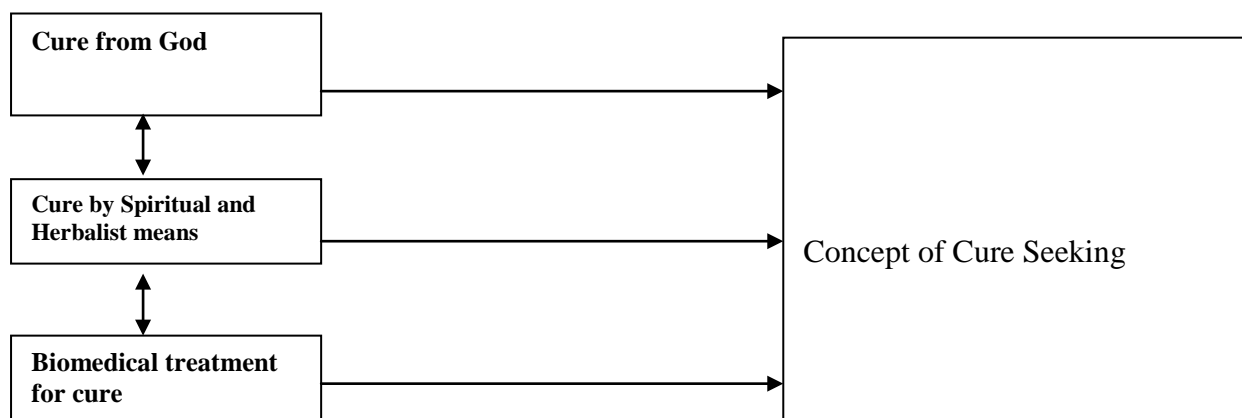
In summary, the previous section looked at options or choices of treatments, which were accessible to newly diagnosed diabetics following a diagnosis of diabetes mellitus. In all, four choices of treatment for diabetes emerged as noted above.

The section below present the concept of `cure seeking` on behalf of the respondents in this study. The concept of `cure seeking` is linked to treatment options but here the participant defines possible pathways for the cure of diabetes. While some respondents described diabetes as a chronic disease, still they hoped for a cure.

4.7vi Patients' concept of seeking cure

The participants mentioned in their narratives the view that diabetes is a chronic disease. However, participants remained hopeful of finding a cure. The drive for `cure seeking` was apparent in the narratives of five (5) respondents and these were linked to participants who either commenced medical treatment immediately upon diagnosis, later reverting to spiritual treatment/herbal treatment or participants who combined both medical and traditional treatments. For these participants desire for a cure for a chronic condition means it is better to consult traditional healers or to combine both biomedical and traditional treatments. This belief was underpinned by faith in traditional and faith/prayer healer's ability to heal all health problems including chronic disease like diabetes mellitus. Figure 6 depicts the concept of cure seeking, where the patients perceives that cure of the condition may be materialized when one of the pathways is considered either through God, or the use of spiritual or herbalist treatment or the use of biomedical treatment or combination of two or three pathways as shown on the diagram, figure 6.

FIGURE 6: PATIENTS' CONCEPT OF CURE SEEKING



When asked to recall why traditional ways of treating diabetes mellitus were chosen, participant 21 explained that for spiritual diseases like diabetes, it is only the traditional religious healers who possess curative powers:

“For spiritual diseases sometimes it is the traditional religious healers who work at prayer camps who are able to cure it” (P21)

Participant 11 suggested the following:

“To be frank for the disease, at the beginning I thought that I would be recovered easily so I was joking with the treatment, so I was moving from herbalist to herbalist and also going to other places in order to get my cure” (P11)

It was obvious from this participant that in the initial stages of diagnosis at least, moving from one traditional healer to another in an anticipation of acquiring a cure for diabetes appeared to be in futile. However, as was so often the case and to the distress of the participant, a cure never materialized.

Ironically, from listening to participants narratives it could be deduced that after diagnosis participants clearly believed diabetes could be cured by traditional healers. However, they soon discovered that recourse to this type of `healing` was unsuccessful. According to the participants in this study, once traditional forms of treatment failed to provide the cure they were seeking, participants then returned to hospital to continue with medical treatment. Participants ultimate `cure seeking` behaviour for diabetes mellitus, which is a chronic condition, that is, to seek hospital treatment was contrary to their original belief in the `supernatural` as source of cure for the condition.

Their decisions of either to treat the condition with biomedicine or spiritual means had no association with their religious affiliation. All of them were Christians, but their decisions to use spirituality to treat their diabetes may contradict the Christian values, which perceive

spiritual treatments as “indecent” as spiritual treatment is believed to encompass some aspects of mystical connotation (Assimeng, 2010).

In contrast, seven (7) participants held the belief that diabetes could be cured by God, for reasons that God is the Creator of human beings and as such could identify what was wrong with the participants. For example participant 9 mentioned that cure from God comes as a result of prayers, fasting, adherence to medication, and refraining from God forbidden substances and behaviours, for example consuming alcohol and unhealthy food:

“Through prayers and fasting the disease can go away and will not come back. You can also treat with medications, so prayers, fasting and medications are very important in the management of diabetes” (P9)

P.9 is a Christian church pastor and as such his background as pastor might have influenced his ardent believe in God to heal his diabetes through prayers and fasting, however the pastor has double stand as at one point in time he also expressed believe in spiritual powers as causing diabetes mellitus.

According to participant 15 praying to God can cure diabetes, whereas fasting as part of treatment could worsen the condition:

“It is God alone who can cure this disease and no one else can help you. It is through prayers alone that can help in the treatment of this condition. I do not do fasting because if I do that the condition may be worse because at times the sugar can go up or down so it is not advisable to fast when you have this disease” (P15)

P.15 is a Jehovah Witness Church member who believes in God to heal diabetes is in line with his doctrinal believes and teachings which stipulates the need to cast ones’ problems or challenges onto God.

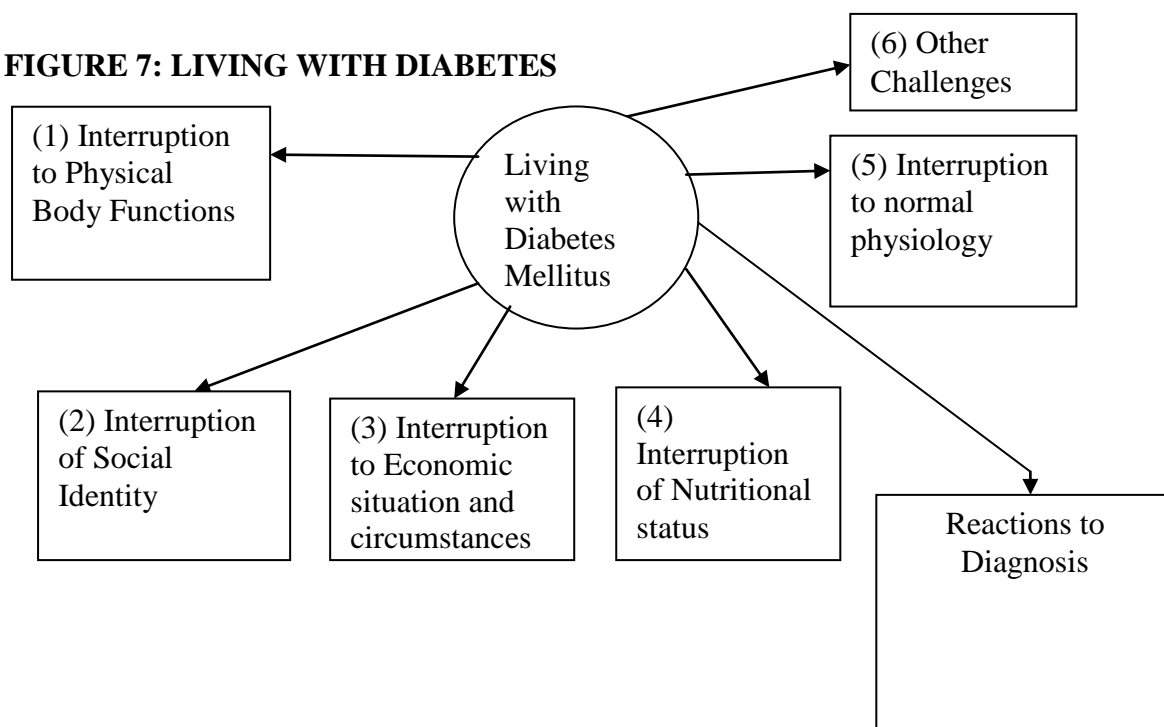
In summary, the above section focused on narratives whereby participants understood diabetes to be a chronic disease, yet anticipated and hoped a cure would be forthcoming. Participants' `cure seeking` behaviour for diabetes mellitus on the one hand often appeared contrary to the belief in `supernatural power` as source of cure for the condition. On the other hand there were participants who expressed the belief that diabetes could be cured by God as the `Creator`, and as such able to identify what was ailing them. This apparent contradiction is reminiscent of `Pascal's Wager`, whereby there is more to be gained from wagering on the existence of God, than from atheism or the absence of a belief in God.

The following section considers participants' experience of living with diabetes mellitus, which centre on 6 major areas including (1) Interruption to Physical Body Functions, (2) Interruption to Social Identity, (3) Interruption to Economic Situation and Circumstances, (4) Interruption to Nutritional Status, (5) Interruption to Normal Physiology, and (6) other challenges associated with the condition.

4.8 Theme (5) - Living with Diabetes Mellitus and Associated Experiences

4.8i. Introduction

`Living with diabetes` as a theme within this study is organized within ten dimensions of everyday life, centred around sexual issues, economics, diet, self-image, fear, education, treatment, family and social issues or relationships, physical body issues and other challenges. Figure 7 below illustrates the various dimensions of experiences that patients living with diabetes mellitus expressed within their narratives.

FIGURE 7: LIVING WITH DIABETES

Patients' experiences of living with diabetes have been organised within six (6) subheadings to reflect the concept of 'interruption to', which appeared consistently within the narrative accounts. Participants expressed their experience of living with diabetes as an interruption to normal life, within the following categories: (1) Interruption to Physical Body Functions, (2) Interruption to Social Identity, (3) Interruption to Economic Situation and Circumstances, (4) Interruption to Nutritional Status, (5) Interruption to Normal Physiology, and (6) other challenges associated with the condition. Each of these categories presented below have attendant subcategories with respective examples.

4.8ii. Interruption to Physical Body Functions:

Interruptions to functions of the physical body are concerned with issues associated with sexual dysfunction and fear of development of complications following a diagnosis of diabetes.

4.8 iii - Sexual Problems/Dysfunction

Perceived sexual weakness emerged as one of the problems faced by patients living with diabetes mellitus. Two (2) male respondents described this as a serious problem facing them after diagnosis. According to one of the respondents when diabetic patients meet together, most complain of some type of sexual dysfunction. The participants appear to give advice to each other, with doctor also prescribing medication for the problem:

“As for this disease the doctors have made us understand that it has no cure and so we need to manage it but at times I have a problem for instance for some time now my manhood is not strong and I am worry about it. I have informed the doctor and he prescribed some drugs for me to buy” (P11)

P.11 had been diagnosed as diabetic for a period of 2 months, so it was wondered how he might have developed sexual dysfunction within this shortest possible time. Probably, the diagnosis of the condition was delayed and so the sexual complication was being developed with time unaware.

Participant 21, a 25-year-old male sorrowfully remarked:

“ I have only 25 years but my manhood is weak. If I like to have intercourse with my girlfriend I do only once and cannot continue. At my youthful age, what will happen when I am old?” (P21)

Similarly, P.11, at age 25, it was ironic to develop sexual weakness at that age, and likely reason may be delayed reporting at the clinic rather than being associated with condition within the 2 and half months of his diabetes mellitus.

Clearly, sexual dysfunction proved challenging to these respondents. From their narratives, it seemed participants were struggling to live with this particular consequence of diabetes.

Certainly for younger respondents the issue of sexual dysfunction was an all consuming issue and in many respects presented a more serious outcome than other aspects of the disease in relation to life trajectory, that is, a side effect that could only worsen with time.

However, none of the female participants in this study reported about sexual dysfunction as a result of diabetes mellitus. This may be due to shyness to report to the researcher or due to the fact that clinically they might have not developed such complications.

4.8 iv. - Fear of Complications and Death

Fear of complications or disability and even death constituted major and common responses within the narratives from almost all the respondents in this study. The death of a colleague with diabetes caused other diabetics to be in a state of fear and panic, leaving them in a state of despair and dejection with contemplations of who may be the subsequent person to pass away:

“When I hear that a colleague or somebody with the diabetes is dead, then I begin to panic because I tell myself who will be the next person. I am going to be the next person or who?” (P4)

Respondents feared the chronic nature of the condition, believing diabetes likely to result in complications thus having an uncertain trajectory. Participant appeared not to know what would happen now or in the future. Participant 14 said:

“ I don’t know what will happen today or tomorrow with this disease. It is a chronic and disabling disease, which can cause lot of serious complications to people who

have it so I was down that very day but with God I have been able to survive this disease since the time I was diagnosed two (2) months ago” (P14)

Similarly, participant 3 said:

“I have heard that people who get diabetes do not live longer. It is known that diabetics live for only 10 years and die because of the severity of the condition. I have heard that one can die at any point in time with diabetes. I have to inject myself and take medications everyday with diabetes” (P3)

Fear of developing complications associated with diabetes and ultimate death was common among the participants and not specific to a group or specific individuals. It was something they have learnt out of experience and so not related to the social background as well as other demographic characteristics of the respondents.

4.8v. - Interruption to Social Identity

Participants recounted being accused of having AIDS, precipitated by weight loss due to diabetes. Participant 22 perceived being abandoned and accused of having AIDS due to severe weight loss had this to say:

“Hym, hmm, hmm, this disease is a bad disease because if you get it you are in trouble because I have grown lean and I have changed completely and so they do not want to come to me anymore” (P22)

In a desperate tone participant 5 recounted how community members regarded weight loss, which again was perceived to be AIDS related and felt stigmatized because a gift from her to another person was rejected because it was thought she had AIDS:

“Since I have reduced in body weight some friends say that I have AIDS.....But for church members they draw closer to me and give all sorts of encouragements to me. At times they give some support in the form of money to buy food and drugs. They do not greet you, nobody will shake your hands because once I have reduced in weight I have the bad disease, AIDS. Even if you offer a gift to somebody, it will be accepted

but later they throw it away because they think the gift is coming from an AIDS patient” (P5)

Participant 23 felt that because she had lost weight community members `shunned` her, acting as if they do not know her:

“When I am walking in town people just look at me as if they do not know me because I have grown lean. They think that I have AIDS because I have heard some people saying that I have reduced so much that they think I have AIDS” (P23)

It was clear for these participants, that the communities they were part of were distressed by their weight loss. Furthermore, a lack of understanding of the cause of the weight loss, which was indicative of the lack of understanding of diabetes per se, led these participants being stigmatized as having AIDS, a condition better understood than diabetes. For those who faced such stigmatization at the level of community and family, the response was one of depression, loneliness and isolation. It is likely that participants such as these will withdraw from social relationships over the trajectory of the illness.

Other issues associated with interruption of social identity for diabetic patients were also noted such as participants had to isolate from friends in order to eat and while administering insulin injections as part of medication. For instance, participant 4 commented on social isolation due to her condition:

“No family and social gatherings because I have to isolate myself in so many situations either to go to hospital or to do something which may be related to my treatment” (P4)

The problem of social identity did not apply to every participant in this study. It was specific to participants who recounted that they had reduced in weight and for that matter at the community or family level; they were branded as HIV/AIDS patients. In addition, social

isolation was unique to those who needed to inject themselves or who needed to go to hospital for follow up care.

4.8vi. - Interruption to Economic Situation and Circumstances

Disruptions to economic standing of the respondents centred on inadequate wage from their managers, economic encumbrance on relations, reduction in income, and increased cost of diabetes treatment and management. According to the respondents, healthcare financing in general is a problem in Ghana. This poses serious economic challenge for patients particularly those living with chronic conditions such as diabetes mellitus. Eight (8) respondents mentioned their self care management problems related to financial circumstances. Participant 22 had this to say:

“We say that we have insurance but you need to get some money on you if you are going to the hospital for treatment or review because I have registered with the insurance scheme but at times I am asked to pay extra to top up before I get my medication especially when the prices of drugs go up and the insurance cannot cover” (P22)

As patients, it was important to have money at any given point in time due to the need to secure against unforeseen circumstances in terms of ill health. Without money, participants lived in fear of uncertainty about the condition of diabetes.

With the meagre salary received from employers, participants needed to take care of themselves at the hospital in the absence of support from family members:

“My employers are paying me at the end of every month but the money is not enough for me this time because of the hospital expenses and other domestic expenses. When I was not having this disease I used to do other things to get extra money to pay for my children’s feeding fee at school but now I cannot do any of these. I told you that I found it difficult to get money to go to hospital. I have a big problem” (P15)

Respondents experienced social and family interruptions associated to the economic effect of diabetes mellitus. These so called `interruptions` caused relationship breakdown and collapse. In Twi language, one participant spoke of ‘Obiara eforce se obenya nano aduane’ which means everybody is struggling to get his or her daily bread so it is not easy to get financial support from other members of the family:

“Everybody in the family has no money to help me and so I have to do everything myself. My main problem is that if I were to be healthy I could have done any strenuous work to buy drugs and other things I need regularly” (P21)

Participant 9 described problems with the national health insurance scheme in terms of its failure and inability to absorb all the cost incurred by the diabetic patients at the hospital, which constituted a serious problem faced by the respondents. Even in certain situations where patients were asked to buy the drug from the open market, the cost was still prohibitive:

“I have registered for the health insurance and so I get my drugs at the hospital but the problem is that it does not cover all the drugs. At times we are asked to pay extra money to subsidize the cost of the insulin and needles. I need financial support from the hospital. I would like to suggest also that they should help us financially in order to get money to take care of ourselves, like money to buy diabetic foods, medications” (P9)

Disruptions associated with economic situations and circumstances of the participants were purely based on individualized experiences living with diabetes mellitus. In some cases these individuals have registered with the national insurance scheme but it is not function well as in most cases subscribers are asked to pay extra monies for medication prescriptions. These were specific cases but not connected with age or sex or any of the demographic factors. Comparative analysis of the participants who reported on financial difficulties indicated that both employed, unemployed, educated and those with limited education, males and females, young and old, complained of financial difficulties with

regards to the management of their diabetes. For instance, 55 year old pastor (P.9), 25 year old sales boy (P. 21) and a 35 year old female food seller (P. 22) all complained of financial difficulties regarding management of their diabetes. This may be related to the poor economic environment in Ghana which has affected the standard of living in general.

4.8vii. - Interruption to Nutritional Status

Respondents' experiences regarding interruptions and restrictions associated with their nutritional status focused on meal scheduling and preparation, modification as well as ability to afford, and value or quality of foods prescribed for diabetics. In all ten (10) participants expressed their perceptions related to the interruptions caused to their diet due to the condition. Participants 26 and 27 described their respective experiences:

“In the morning if I should take tea, there will be no sugar, no butter. We are asked to eat in small quantity at a time, which means wherever you go there should be food in my bag, which is difficult for me to bear. The type of food that they tell us to eat is not common person's food. You need to buy with money; so all these things make the management of the condition very, very difficult” (P26)

For participant 27, diet planning was a major challenge, especially what to eat in the morning, afternoon and evening, that is, throughout the day. Within the family this participant was expected to eat together with other family members. He expressed feelings of embarrassment in having to eat separately, as if isolated. This participant was also worried about additional responsibility for the one who cooks at home as his diet needed to be prepared different from other family members, effectively creating an additional burden:

“Diet planning constitutes a big and a major challenge for me as diabetic patient. In the morning, afternoon, and evening I have to plan all these. I have a family and we used to eat together and we eat the same food, which is cooked at home. To change diet all of a sudden is difficult for everybody at home because my food needs to be cooked differently” (P27)

Respondents felt forced to eat what they were not ready and supposed to eat due to their `new self`. This new self identity defined what the participants could and could not do in relation to diabetes. For this participant certain foods could be bought and consumed prior to the onset of diabetes, which he now felt deprived of. Furthermore the `permissible` foods were more expensive and problematic to acquire:

“There were certain foods I could eat which were very cheap before my diagnosis but now I have diabetes and so I cannot eat them now. Those foods I could eat previously were very cheap, which I could afford to buy. The foods that they have recommended for me now I cannot buy. Because of this you are forced to eat what you are not supposed to eat” (P25)

Most respondents complained of financial problems associated with living with diabetes, especially meeting the cost of hospital care and meeting dietary requirements. Patients feared living with a chronic condition due to the monetary implications and the challenges posed by having to fund treatment costs, even within the framework of the national health insurance scheme.

Some participants were able to associate the type and quantity of food consumed with the undesirable physical signs and symptoms experienced, which they subsequently worried about. From their experiences, participants recounted having to eat in smaller quantities. Participants expressed not being fully satiated after eating. However, because of diabetes they felt unable to eat more in order to avoid problems associated with the disease, and therefore reported feeling constantly hungry:

“Ok, ehh, actually feeding is not quite a problem but the quantity I eat and then the type of food that I eat sometimes become a challenge to me. Yesterday for instance I started passing a lot of urine and became so perplexed and shocked because sometimes I associate that with the increase of the sugar so when I have to eat I reduce the quantity I eat” (P7)

Being able to associate type of diet consumed with subsequent physical signs and symptoms was arguably a positive comment from patients in that patients were clearly taking note of their own bodily responses to food and adjusting their daily food intake accordingly. In the absence of medication due to lack of funds the ability to self manage diabetes through diet alone could be viewed as a positive outcome of essentially being resource poor. Participant 10 noted the experience of dietary ‘interruption’:

“If I eat too much I urinate frequently and it becomes difficult for me but a food like plantain or beans does not give me problems at all. If I eat plantain or beans I sleep soundly at night, I do not pass lot of urine. Soup is good for me. Banana and orange is not good for me. I urinate plenty with these foods” (P10)

For participant 20 now the condition of diabetes was known, the necessary steps could be taken to improve health in terms of food consumed. Though challenges were self evident, nevertheless achieving health through paying attention to diet appeared possible:

“Now I must try to make sure that my health becomes my main concern. My diet, medication, exercise and rest are very important to me now. I have to control my food intake to make sure that sugary foods are out of my way. I am in the process of reducing my weight, which is also good as part of the management of diabetes” (P20)

It is clear from the narratives that having necessary measures in place for self care management in terms of dietary plan, exercises, and medication would go some way towards living successfully with the condition, while not completely alleviating the challenges.

Respondents’ background did not define specifically nutritional interruptions experienced by them as interruptions to nutritional status were case specific as narrated by the participants. Findings with regards to diet problems did not show any particular pattern but individually

defined based on their personal experiences living with the condition in terms of diet management.

4.8viii. - Interruption to Normal Physiology

Respondents' experiences associated with disruptions of normal physiology focused on too much urination and dehydration, physical faintness and problems associated with vision among others. At the beginning of the condition, some respondents thought that the manifestations of the condition were normal, such as drinking of plenty and urinating regularly. Subsequently, these were found to be unusual and afterwards reported at the hospital for medical and further management. In all, nine (9) respondents described living with the clinical manifestations of diabetes:

"I started having this problem of urinating too much and also drinking plenty of water. Later it became too much for me and I started becoming dry and so I informed my friend who is also at the same police station with me. He said that his mother experienced the same problem some time back and when it was checked at the hospital she was diagnosed as having diabetes. He then advised me to see a doctor at the hospital" (P16)

Patients experienced serious clinical manifestations but with care received at the hospital they experienced improvements in their conditions:

"You will be very thirsty and immediately you drink water you have to urinate and that is why I have reduced in weight as you can see it yourself. Initially it was very dangerous for me but now I hope it is better due to hospital attendance" (P27)

Others respondents complained about serious clinical manifestations of diabetes requiring frequent hospital admissions on occasion following collapse at home:

"As a bank worker I could not hold pen to write at the beginning of the condition. You can imagine if you go to work as a bank worker and you cannot hold pen to write. One day I went to work and I collapsed. This disease is not predictable because anything can happen to sufferers of diabetes at any point in time. I was taken to hospital and when I became conscious I could not tell what had happened to me" (P2)

In contrast one (1) respondent drew on a different scenario prior to diagnosis, whereby she determined she had diabetes. This participant described urinating, whereby ants surrounded the urine due to high sugar content. Based on this experience, this respondent went immediately to hospital for a medical check up and received confirmation of diabetes:

“But later when I saw that I was urinating too much and ants gather round my urine, I began to think that I have diabetes because many people say that urine with sugar attracts ants. I also had bodily weakness. Later when I came to the hospital for check up, the sugar level in my blood had gone up and I was drinking too much water” (P5)

In the previous section we have examined experiences of participants living with diabetes which centred basically in 5 thematic areas namely, (1) Interruption to Physical Body Functions, (2) Interruption to Social Identity, (3) Interruption to Economic Situation and Circumstances, (4) Interruption to Nutritional Status, (5) Interruption to Normal Physiology. Other challenges associated with living with the condition are examined in the next section.

4.8ix. - Other Challenges

These were specific and unique cases for participants based on their own personal experiences. These challenges centered on education, pain associated with injection, unavailability of glucometers, and boredom associated with daily administration of oral medications among others. For instance, one (1) respondent, a student described how he missed classes due to hospital attendance and reviews. For this reason, he had to copy class notes after returning from the hospital. There was a time he collapsed at school and was taken to the school clinic, following which he needed a special diet. Consequently, at school his peer group identified him as somebody with poor health, who could infect other students:

“As a student, there are a lot of challenges facing me with this condition. I need to take my drugs always and also to check my sugar level before I take the drugs in the midst of students in my hall of residence. At times because of my condition I need to

consult the doctor at the hospital for review. In such cases I have to forfeit the class and go to hospital. Now in the school my colleagues know that I have diabetes because I am on special diet in the morning.....I miss lectures when I go to hospital for review. When I come back from the hospital I copy notes from my classmates and also we have formed reading groups in the class and they have been source of help to me. My father also has been supporting me so much because he has asked my teachers to organised extra classes for me in English, Maths and Science” (P17)

This is case specific to a student with diabetes in this instance and as such there may be the need to attend to his needs in a specific way.

This participant went on to say:

“There was a time I collapsed at the school and my colleagues who are also students took me to the clinic where the nurse gave some drips and later transferred me to the main hospital for attention. It was the day I will never forget in my life because it seems to me that everybody heard that I collapsed that day in the school. In some way I see that I am stigmatised because they know that I can collapse, I take special food, and I am fragile in some way, I take drugs everyday and so the students may look at me with different eyes and they see me as a unique person among a lot” (P17)

The student apparently saw himself as stigmatised by his colleagues and felt worried and threatened about being labelled in that way. Despite these challenges with his schooling, he had support from his parents to have extra classes, which allowed him to meet his educational aspirations.

Participant 16, a police officer, reported a challenge related to work schedule, especially when on duty at night, which was relieved after making his condition known to his employer:

“The only challenge is on the day when I do not feel fine and I want to go for treatment. We are not many at the station so at times a colleague will run my shift for me but this cannot continue forever. Because of this at times I feel very worried and I do not want to ask for permission always for medical treatment. Especially if I am on

night duty, the next day I feel very weak. I complained and they have relieved me of the night duties and now I run only the morning and afternoon duties” (P16)

Other challenges faced by respondents centred on lack of glucometers for individual patients, especially since they wanted to check their glucose level at home. A lack of equipment was perceived to impact on the ability of the respondents to self manage the condition as they were not able to check their glucose level and thus determine an immediate response or intervention:

“Here in Africa we don’t have things to check the glucose level always by individuals, when I feel uneasy the best thing is to sleep and I fast, I don’t have to eat. When I feel uneasy, I urinate a lot at that point in time, and I drink lot of water. When I see these things I think that the sugar level has gone up, so I don’t eat, and I just decide to sleep. If I eat it means that the sugar level will continue to go up, so I have to stop eating and lie down for some time” (P3)

Another point of concern for the respondents related to insulin injection and daily oral medication. Participants expressed discomfort with treatment regimes:

“The injections are not easy, with the pains; hmm I have to bear it. What can I do? It is difficult. The doctor said that he will let me take the insulin injection for some time and as time goes on he will decide what to do. He was saying that based on my response to the injections he may change it to tablets with time. So I have problem with injections” (P11)

“I have to take injections everyday and also take my oral medications” (P4)

Participants also shared their experiences in terms of what happened on ‘good’ days and ‘poor’ days since diagnosis. These centred on how participants felt throughout the day. A good day following participants feeling well, whereby health was not perceived as a ‘worry’. On the other hand poor days posed a threat to health and often corresponded with having to attend hospital for treatment:

“A good day to me is when I get up in the morning and I feel fine. That is when I do not feel any bad signs like I am not urinating and I am not drinking too much water. Unlike a bad day when you feel very weak and dejected and so worried because you have all the symptoms of the condition which makes it difficult to manage” (P13)

When asked what happens on poor days participant 3 suggested:

“Every diabetes is bad because of its severity due to pains and discomfort it can cause to the affected persons. On bad days if my sugar level goes up, I have to take a number of injections and this is seriously affecting me. But what should I do? It is important not to let the diabetes destroy my entire life, and overcome me, rather I should try to overcome it by employing all possible means to manage it” (P3)

To participant 3, despite these challenges, effort must be made not to allow diabetes to overcome him but to manage all possible ways to overcome the condition.

It is important to note from the patients' experiences that what constitutes good and poor days is based on how they view their present condition. From respondents' experiences, a good day is likely to reinforce positive health behaviour, whereas a poor day, at least in part, reinforces health behaviours that need to be avoided. Factors which led to good days were perceived to result better health outcomes for these individuals.

The section above concentrated on the patients' experiences of living with diabetes mellitus, categorized under six (6) main headings. The notion of `interruption` was used to explain participants experiences of diabetes, that is, interruption of body self or physical body functions, interruption to social identity, interruption to economic situation and circumstances, interruption of nutritional status, interruption to normal physiology and other challenges associated living with the condition.

The next section considers coping methods used by newly diagnosed patients in meeting the challenges associated with type 2 diabetes. Coping methods or strategies are categorized into positive, negative and alternative coping methods in the next section. This is followed by a summary diagram showing final relationship between all the major categories identified in this study. At the end of the chapter is presented the concept of `Being Ghanaian` - use of language in a specific sound form to indicate an expressing of a sense of sentiment about an unpleasant situation, and finally conclusion of the findings chapter is presented.

4.9 Theme (6) - Coping Strategies Used by Type 2 Diabetics

4.9i - Introduction

The previous section considered patients' (participants in this study) perceptions regarding the causes of diabetes, paying particular attention to the cultural context of Ghana and what it means to `be Ghanaian, the social meanings attributed to diabetes in Ghana, patients' reactions to diagnosis, treatment options available to patients upon diagnosis, the concept of `cure seeking`, and reported experiences of living with diabetes mellitus. The following section considers the coping strategies adopted by the participants as they attempted to come to terms with their diagnosis. The coping strategies described here are categorised as positive, negative, and alternative strategies as a means of differentiating between and within the narratives.

Within this study two major coping strategies were found following analysis of the data. These were broadly positive and negative coping methods with various subcategories. There were however, specific coping strategies used by the respondents to deal with unique problems, which are categorized as `alternative` coping strategies. The diagram below (figure

8) depicts the relationship between living with diabetes and the types of coping strategies adopted by respondents to deal with the challenges associated with living with the condition.

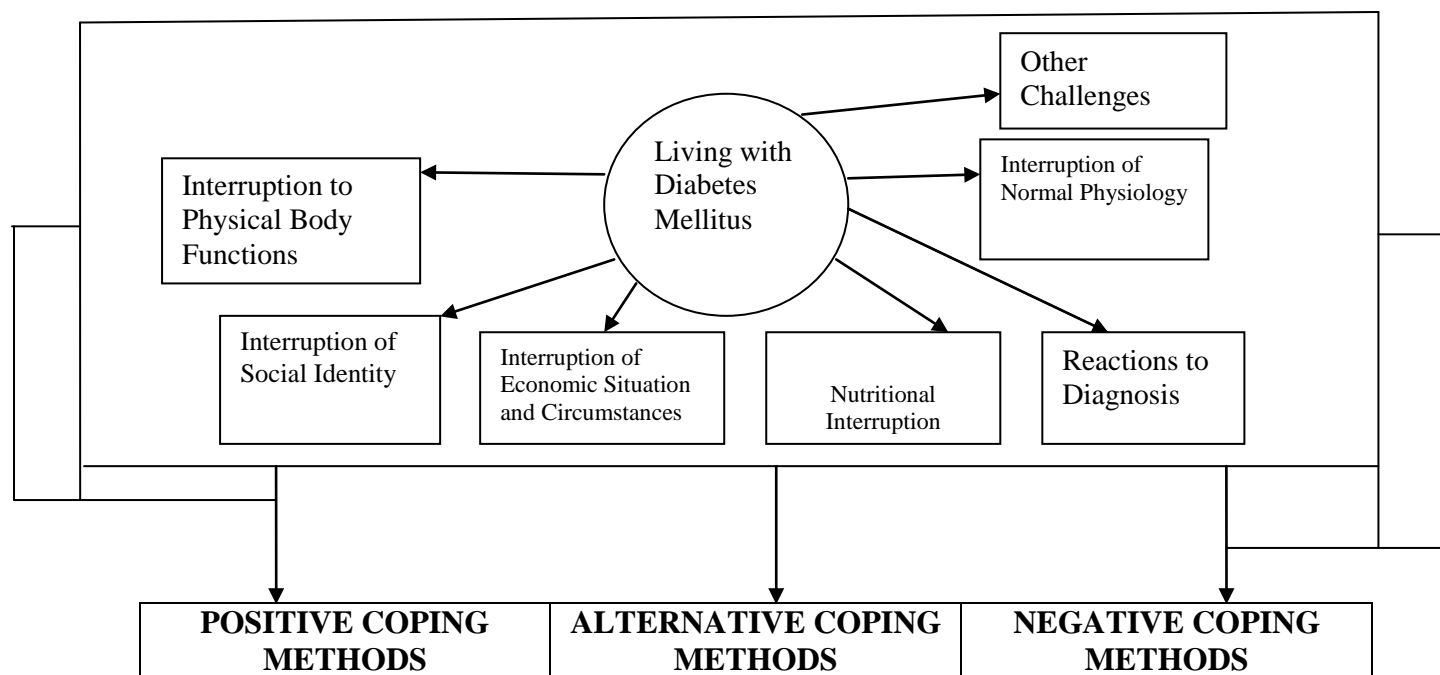


FIGURE 8: RELATIONSHIP BETWEEN LIVING WITH AND COPING WITH DIABETES MELLITUS

4.9ii. - Positive Coping Strategies

h) - Religious/Spiritual Coping Strategies

The majority of the respondents, twenty two (23) of twenty seven (27) used religious strategies to deal with their initial reactions to diagnosis. In their narratives they prayed to God to give them courage to deal with the condition believing God to be `Creator` of human beings, i.e. if there were any disease condition in the body God would be able to cure it. Other respondents were of the fatalistic view that since diabetes had developed, why not leave everything with God to deal with it:

“I was shocked because I never thought that I have such a condition so when he said that I have diabetes I was actually shocked. I prayed to God to give me courage to contain that message from the doctor. I was down that very day but with God I was able to survive the shock news” (P12)

Participant 8 expressed faith in God as the source of life is God. Therefore all hope should be placed in God for help and survival. The most important way of communicating this hope for survival to God was believed to be through prayer as a direct means of telling God what was needed:

“It is God who created me into this world so everything is for Him. In the mystery way that God brought me into this world, He can use that same mystery way to cure my condition. Once He was able to raise the dead, I know He can cure my disease. Prayer is the only communication between man and God and it works perfectly. The only thing is to kneel down to pray and you ask for what you need, that is all” (P8)

Participant 14 was of the view that while doctors and nurses do their best for patients, if God is not on the patients' side their efforts to treat the condition will be less than positive. In

addition to medical care, patients need to fast, pray and continue with medications that had been given by doctors and nurses, if the disease condition was to be thwarted:

“I must say that without God one cannot survive this condition because it is God alone who can cure this disease. Doctors and nurses will do their best but if God is not on the patient’s side the efforts by the medical staff will yield no positive result. Through prayers and fasting the disease can go away and will not come back” (P14)

However, participant 18 stated that God was not present in a physical sense to help people with diabetes but worked through other people to help those living with diabetes:

“God will not be there as a physical person to give you what you need but God speaks through other people to give help. That is why my church members have been coming to my aid in so many forms. At least this has been helpful to some extent and I am very happy with that” (P18)

Two (2) respondents mentioned that it was not advisable to fast when having diabetes but rather to continue with prayers and in the hope of some improvement in the condition, and the expressed hope that the condition would not kill them:

“I prayed that God should take the disease away. Some people also do fasting but to me the nature of the condition will not allow me to fast. As for disease it can occur at any time but with God all things are possible” (P10)

On the other hand one (1) participant, a Moslem mentioned that as only God created human beings only God could heal the condition:

“ I know that it is only God who can help me. I look up to God, the ultimate being who will help me. I know that it is God who created me and so if there is any disease then it is from Him and nobody else” (P6)

It is important to note that of the twenty seven (27) respondents interviewed, 26 described their religious affiliation as Christians. It is therefore not surprising that their Christian faith was strongly reflected in the coping methods they drew on. Religiosity emerged as a strong coping method for these respondents. Generally, Ghanaian people are very religious as the researcher has already pointed out, and this might have influenced the diabetics in dealing with the challenges associated with the condition.

i) - `Medical` coping strategies

A means of coping deemed instrumental for twenty two (22) respondents was described as a reliance on medical staff for treatment, education and advice. Since diagnosis respondents had attended clinic for review every two (2) weeks to see medical and nursing staff for treatment which they reported as helpful. In addition to review appointments, diabetic patients had the opportunity to see the doctor if they were not feeling well:

“I have relied on health professionals since I was diagnosed. I have been seeing my doctor almost every two weeks at the hospital for review. The nurses also take that opportunity to educate me on the condition about what I should do and what I should not do.....I have been following these instructions since my diagnosis about three months now” (P25)

Participant 13 suggested similar reasons for managing his condition through resorting to medical advice:

“After the diagnosis I have been going to the hospital for review every two weeks to see the doctors and nurses. In the morning before I see the doctor, I go to the laboratory to check blood sugar level and show results to the doctor before he orders something for me They are saying I should be very careful about the intake of saturated and animal fats, sugary, and alcohol” (P13)

The concept of drawing on medical staff as a coping strategy was instrumental in respondents’ understanding of the causes of diabetes, signs and symptoms, treatment and

prevention of complications. The nurses and doctors were able to advice on diet and general health behaviour conducive to living successfully with diabetes mellitus:

“The nurses at the clinic have told me how I can live with this condition in such a way that nothing will happen to me. They have identified all what we are supposed to do and what is not good to do and have put all these together in a booklet form for us. They also encourage us to register with the diabetic’s patients association and that is very good” (P15)

As part of the health education provided by the clinic participant 11 also mentioned that nurses and doctors took the opportunity to promote positive health and to counter negative health beliefs about diabetes:

“ When I come to hospital, a nurse who comes to educate us whiles we are waiting for the doctor. At times they give us handouts about do and don’t of diabetes, they tell us about the drugs that we can take and those that we cannot take. We have been told at the clinic that we can get diabetes through our families or if there is an accident it can affect your thing and so you can have through that way” (P11)

Furthermore, as part of drawing on medical staff as a coping strategy, the clinic staff educated patients regarding the need to inform family members of the condition as an emergency measure. Patients who visited the clinic were also given cards with the following details inscribed ‘I am a diabetic so help me in an emergency situation’:

“The doctor told me that I have to make my family members aware of my condition so that in case of any emergency like coma they will take me to the hospital on time. The hospital has also given me a card which I carry along anywhere I go, for instance if I am travelling I take it along. I have my name and my diagnosis on it so that in case I need urgent care I can show it anywhere I find myself” (P12)

Medical coping strategy was applied generally by the respondents in their attempt to reach the medical staff for treatment, education and advice in order to deal with the condition. In addition, through cordial relationships, which were established between the patients and the

care providers, patients were able to use this `coping strategy` to receive consultations from their healthcare professional whom they regarded as `friends`. Respondents requested phone numbers of their doctors and nurses whom they have formed friendships with and could call them at any point in time without fear of the health professionals refusing to support them. In this way, respondents were able to discuss their unusual signs and symptoms via the telephone for advice. As a chronic condition respondents viewed this `informal` coping strategy as useful in that respondents could rely on a health professional being available to them at any point in time, which did not require extra expenditure on their side:

“I know that it is a chronic disease and so I have to get somebody whom I will rely on at any point in time for support and care and because of that I have managed to get friends at the hospital whom I call at times to give me ideas about what to do not necessarily going to the hospital all the time. With continuous attendance at the hospital you get to know them through your interactions with them so you tell them that you want them to be your friend and it starts from there and then you exchange telephone numbers and friendships get started and it has been very helpful for me in particular” (P20)

Participant 27 suggested friendship with hospital staff was key in providing assistance with healthcare:

“I have most of the hospital staff as friends, so I can approach them at any point in time for assistance” (P27)

“Health professional as friends or allies in coping is new knowledge as literature has not identified it before”. The use of “a health professional as a friend in coping is part of new knowledge generated by this thesis”.

j) - Financial coping strategies

In situations of financial difficulty and where the national health insurance scheme could not absorb all hospital costs, respondents turned to significant others for financial assistance.

Financial assistance could include borrowing from friends, church groups, family members, wives, husbands and children, who respondents variously reported as providing money, helping secure salary advances from employers and/or `soft` loans from welfare associations. The financial cost of care for patients was coined in the description of diabetes as ‘asikafo yare’ (disease of the wealthy), that is, without money one cannot take good care of diabetes. Respondents reported the national health insurance scheme as not able to cover the entire cost of treatment:

“I have registered for the health insurance and so I get my drugs at the hospital but the problem is that it does not cover all the drugs. At times we are asked to pay extra money to subsidize the cost of the insulin and needles. For the drugs I pay about 6 cedis (about 1 pound) in addition. This is not the cost of the medication but an extra cost that I pay during my regular visit. Without the insurance you will buy it around 20 cedis (about 3 pound)” (P9)

Participant 8 explained that his wife used to pay the hospital bill if it became very difficult for the national health insurance to settle the hospital bill. However, this participant also reported looking for the researcher to act as a guarantor for him on an occasion when he could not pay the hospital bill. In the absence of the researcher the respondent borrowed from someone at the hospital in order to pay the required bill:

“At times I have to borrow money or my wife also tries to manage. She is a petty trader at the market, so she goes out to sell some of her commodities from house to house. The health insurance scheme is also helpful provided all the drugs prescribed for the clients are covered by the insurance but if they are not covered by the scheme then it becomes a big problem. Last time when I went to the hospital, they asked me to pay for a drug, which is outside the list of drugs approved by the scheme. On that day I was looking for you to guarantee for me but I did not see you. If by any reason you are not able to get money to buy the drug, you have to stay without medication until you are able to secure it” (P8)

It is clear from participants narratives that interventions to improve care for diabetic patients in Ghana would need to address financial difficulties experienced by patients. However, it is likely that the current Ghanaian Government would respond by suggesting patients participate in the National Health Insurance Scheme, which in essence ignores the fact that many patients view the scheme as corrupt; a catch 22 situation.

Respondents described having to secure financial assistance from wives and close relatives in order to meet healthcare costs:

“Now I receive financial assistance from some of my family members and that has actually helped me to live up to all the pressures since I had diabetes. At times I borrow from them to pay for the drugs that I need and also to pay for my children’s school fees. My wife has been so supportive to me; she operates a small shop and out of what she gets, she is able to prepare something for us to eat in the morning, afternoon and evening” (P15)

It is common that strong family ties require friends and family members to assist those affected with ill health in any way possible. In addition, support from church members and organisations are usually available:

“I ask for a bit of support from family, friends, church members depending on the circumstances. At times you see that you have nothing with you and you ask them for some help in terms of getting you some money to buy few things you need” (P22)

Salary advances from employers and `soft` loan from the diabetic association were also used to pay for treatment costs:

“At times I have to borrow from shop owner at the boutique where I work. The owner is very sympathetic woman. She can give me the money to go to hospital and at the end of the month she deducts it from my salary and that is good for me” (P21)

In a critical situation, one (1) respondent described ‘no way of paying a hospital bill’. This respondent was forced to sign an undertaking to pay the hospital bill at a later date. The hospital has a policy where poor and sick people who cannot settle their bills are asked to sign an undertaking to pay the bill in future without interest. However, a guarantor is needed in order for this option to be made available:

“At times I have to go to the office of the hospital administrator to sign an undertaken to pay later” (P13)

Clearly, it was noted that the need for financial coping was based on the individuality as it became imperative to receive some kind of financial support in order to manage their conditions.

k) - Information Seeking as a coping strategy

Respondents identified the role of information as key to enabling ‘coping’ with diabetes. Twelve (12) respondents described seeking information with sources ranging from hospital, internet, television, radio, reading books, through diabetic association, market display, popular broadcasting, and face to face verbal interactions with people perceived to be able to help or advise on the treatment, termed in Ghanaian Akan Twi language as ‘woton wo yare a wonya ano aduro’ literally meaning ‘if you sell your disease, you get remedy for it’:

“I am somebody who is so curious, I only want to know much about whatever has happened to me, so I decided to do research into diabetes, reading so many books and pamphlets here and there, visiting Internet to get current information about its treatment and asking questions so the reading and the research or Internet information has helped me to know that next time I don’t have to do these things again” (P1)

Similarly, participant 24 stated:

“ I look for different formats of information like books, leaflets, electronic format from the Internet, TV and radio information on diabetes and face-to-face support from people who know much about the condition especially those at the clinic and those who are at times invited by the association to come and give us talk about diabetes” (P24)

Obtaining information about diabetes was deemed a positive coping strategy in order for patients to manage and prevent complications. Respondents also described using information after diagnosis:

“I ask the doctor so many questions when I go for consultation and I get information from all of them, so by so doing we get all the information we need to manage the condition from the nurses and doctors” (P11)

Participant 6 obtained information from simple discussions with individuals on the street or in the market place where people sold their commercial products:

“I try to get information about it from other sources so that these will help me manage the condition. At times if I am walking and I hear some people talking about diabetes, I pause to listen to what they are saying, so that if they have something to offer me in terms of treatment, then I have to take it” (P6)

Whereas participant 18 described information about diabetes treatment, which could be bought from private individuals who commercialised their products:

“ There are other people who go to the FM stations and claim that they have cure for diabetes. Some of them we should be careful about them because there was time my father nearly died because of their drugs that they promote so I have learnt lessons from that and so I do not entertain that at all” (P18)

In Ghana it is common practice for private individuals at market places to openly advertise commercial products, which are claimed to be able to cure all chronic diseases including diabetes and many people patronize such services. Some of these private individuals also find ways to advertise their products to the public. In most case the claim is for a total cure for all kinds of chronic conditions, including AIDS. It is sad to note more harm is caused to patients with diabetes through the proliferation of inappropriate health advice, in spite of the fact that patients are advised by hospital staff to be careful about seeking recourse to other sources of information. Respondents reported looking to the internet for information. However, such internet information about the complications of the diabetes caused one respondent to become overly worried about the condition and resulted in cessation of information seeking:

“Initially, when I was diagnosed as having the condition, I used to look for information about this condition from the internet, especially its definition and what actually what goes on in the body and complications which could crop up, but at times some of the complications you hear about are alarming so I decide to close my mind on some of these things, on getting many information on this condition or disease, sometimes I feel so scared, frightened, so if you give me something to read, sometimes I read a bit and throw it somewhere” (P7)

Analysis showed that irrespective of participants’ background the search for information to deal with the condition was crucial to them. However the nature of information was determined based on their educational level to some extent. Those who were able to read searched for internet as well as book information about the condition, whereas those with limited ability to read for information relied on verbal information such as listening to the radio and also interacting with people. Nevertheless there were some individual participants with only basic education, yet they relied on internet and television news and use of book information to deal with the condition. For example participant 24 had basic education but used internet to look for information on diabetes following diagnosis.

1) - Social support in coping

Another important coping method available to the diabetic patients was the use of social support services offered by families, including children, wives or husbands and extended family members. Other sources of support included church groups and organized associations, for example hairdressers' association. The above-mentioned individuals and organized groups often supported, cared for and offered support and encouragement to patients in times of difficulties. Ten (10) respondents drew on social support as a means of coping with diabetes:

“My husband, and my children and my church members have helped me. When I am going to hospital my child can follow me. This my child who is sitting here with me always tells me that Mama if you need something from me try to tell me” (P12)

“As for my family they are helping me a lot. My mother and father are typical examples. My church members also help me especially when I am admitted. In such situations delegation from the church are sent to the hospital to greet me and also to offer gifts to me for my upkeep at the hospital” (P10)

Participant 6, a police officer received support from the local policemen association in the form of consumables at a critical point of his condition. Support from friends, church and family were also forthcoming:

“Last time local association of policemen also came to my aid when they heard that I was detained at the hospital for treatment. They gave me some amount of money and other consumables like kenkey, yam, plantain and soap” (P16)

Clearly it is imperative for people living with diabetes to receive support and care from other sources in order to make their lives meaningful and complete. Without support, patients risk feeling overwhelmed by the condition in that individual efforts are deemed inadequate to manage the chronicity of diabetes, hence the need for support and care. I have observed as a

nurse in my interaction with patients that these are specific instances whereby patients received support from friends as well as family members in times of need. These are usually in the form of gifts such as food, money, drinks and detergents, clothes and foot wears to mention a few.

m) - Emotional Support in coping

Psychological support from family and significant others is essential if patients are to cope with a chronic disease. Eight (8) respondents received emotional support from family and friends:

Participant 25 suggested:

“I have nobody to give me words of encouragement except my wife and the children and other family members after my diagnosis. At times I begin to ponder over this disease because I do not know the outcome of it. But when my wife sees that I am sitting too quiet she asks me about what I am thinking about, then she offers me some advice that I should not think about the condition because God will deal with it” (P25)

Such encouragement was noted as putting patients at ease, which is essential for well-being and good health. Reliance on families and friends for emotional support draws patients close to these individuals, hence the feeling of a sense of belonging and of psychological wellbeing:

“My family has been so instrumental in my care. Since my diagnosis they have been a source of inspiration to me. They do not give me so much money to take care of myself but the words of encouragements from them is overwhelming. I do not know how to quantify that but in all I have appreciated their efforts of encouragements and advice” (P27)

The need to provide psychological support for people living with diabetes is very essential in their care and treatment. This may help these patients to live meaningful life and to stay

healthy. These were needed in specific instances whereby participants had emotional support from family members and other people as a way of showing support.

n) - Diabetic Patients Association and coping

Nine (9) respondents reported using the diabetic association as a coping resource.

Respondents were inspired by members of the association, who shared important diabetes information among members, invited `resource persons` to provide health education about diabetes, received certain items at reduced price through the association and had support through the association from other groups, for example churches and other benevolent organizations:

“I am talking about diabetics who have come together to form an association. We meet to share ideas about how to care for ourselves.....At times too with common front we are able to get some kind of support from church groups like SDA, Catholic and Methodists to mention a few and these forms of assistance help us to cope. Last time we had glucometers at reduced prices through the association” (P5)

Participant 9 described the experience of attending an association meeting:

“It is there that we share our experiences in life with the disease. They teach us how to take care of the body. At times we invite people who know much about the diabetes to come and educate us. It is fun when we meet as group members at the hospital” (P9)

Members of the association visited fellow members of the association in their homes and served as a source of hope and encouragement. Any important information about diabetes care was also distributed to members through text messaging. Participant 20 explained:

“At times I receive phone calls from members of the association about what they have learnt from other sources like Internet. If they have any meaningful information from the net they send it to all members and I also receive it. At times it is in a form of text

messaging about the need to meet as members to share ideas about our welfare and that has been helpful and educative to us” (P20)

It is important to note that this was a way of empowering diabetics to be knowledgeable about diabetes. Such a move by the diabetics would equip members of the association to enhance their welfare and also to improve health in both the short and long term.

4.9iii. – Negative coping strategies

a) - Confrontation with family members and significant others

Five (5) respondents appeared to use confrontation with family members and significant others as a coping strategy, albeit a negative one. Four (4) respondents reported having accused family members and other people of causing them to have diabetes through mystical means. These respondents expressed anger at such individuals and avoided them in any social interactions, further accusing these individuals as have powers to `bewitch`. Two (2) respondents suggested consulting other powers to counteract the so-called bewitchment by their perceived opponents. However, these respondents stopped short of resorting to this behaviour, instead preferring to believe their problems could be resolved through prayer:

“(She smiled). It will not be like give and take affair or to fight that person but the only thing I have to do is to isolate myself from that family member or whoever that person may be. So I have to run away from them and pray to God, because He has the ears to listen to me and protect me” (P22)

Participant 21 expressed concern about the need to avoid such a person in any interaction at both family and individual level:

“Those that I think are the causers of my condition; I do not like to see them. They like to kill me so why should I bother to see them. If I see any of them coming I have to find

my somewhere. I have to avoid them in any sphere of my life. We do not meet. We do not agree on any issue whether at the family or individual level” (P21)

However, according to participant 5 confrontation with individuals centred on accusations of having AIDS due to weight loss. On answering the question on how she coped with those who accused her of having AIDS, participant 5 mentioned that she insulted them openly, and fought with them. This participant suggested that secret comments were made about her, for example ‘They will make huuhuuu, huuhuuu about you’, which literally means ‘they will say secret things about you like you are a scaring human being’. Such individuals also spread the news to every part of the town which she used as a metaphor to say that they could spread the news to Burkina Faso, a country found at the northern part of Ghana i.e. far away from Ghana:

“What I do is that at times I fight with them, I insult them. I tell them to accompany me to hospital to check my records whether I have AIDS or not. They will make ‘huuhuuu, huuhuuu,’ about you. As a matter of fact if I see that I will not come to you again, I will stop any interaction with you so that I can avoid you, because you are talking about my disease, you have let me know that you are talking about my disease so I have to avoid such a person. That person wants to destroy you.she will spread the disease and let everybody hear about you even they can spread the news to Burkina and let everybody hear about the disease that you have” (P5)

Those who used this method were very confrontational to the extent that, even during the data collection, I could remember that, they were very aggressive in their utterances in terms of who they perceived to have caused their diseases. For instance participant 5 was angry about those she perceived to have caused her condition and that she was not in good terms with them, to the extent that they do not speak in terms with each other and used to trade in insults with such individuals.

Confrontation as a negative coping method used by Ghanaian type 2 diabetics has not been identified by the literature and that “confrontation adds to new knowledge on coping with type 2 diabetes mellitus”. In other words “**Confrontation as a negative coping method used by Ghanaian type 2 diabetics** is part of new knowledge generated by this thesis”. This is new knowledge because the use of confrontation in this Ghanaian context is not meant to deal with the disease condition, rather it is intended to deal with the person is perceived to have brought about the condition in a mystical way.

b) - Social Isolation

Social isolation was used by respondents as an initial coping strategy following diagnosis. One (1) of the respondents reported having isolated himself from the family members and other people because he did not want them to hear that he had diabetes mellitus for fear of being stigmatized. He informed only the wife. However, he later realised that it was dangerous to do that as in an emergency other family members may also help and therefore needed to know his disease status:

“In fact initially, I was hiding it from family members and other people. If the person around you does not know why you have fainted, the person will not be able to help you in a way he is supposed to. Because of these unforeseen problems it will be better to let people know your condition” (P11)

A further respondent reported self imposed isolation from other people due to fear of AIDS related stigmatisation. This respondent did not want people to sympathize with him because he had diabetes and so decided to isolate himself:

“Now that I have reduce in weight others think that I have AIDS, but the doctor has said nothing about that and because of that at times I have to isolate myself from other people” (P14)

The danger of social isolation for people living with diabetes is self evident in that sudden complications, for example hypo or hyperglycaemic emergencies, which can result in diabetic coma requiring immediate assistance and rapid response from others.

These were specific coping methods used by particular participants who did not want other people to hear about their conditions for fear of stigma.

c) - Using alcohol

Respondents spoke about using alcohol to alleviate stress associated with diabetes and in order to cope with the condition. One particular respondent reported using alcohol in the initial stages of the condition. This was based on advice she received from someone about the need to drink strong alcohol if one is a diabetic. Unfortunately, but unsurprisingly this respondent nearly died from this behaviour. However, following this traumatic experience the respondent desisted with this behavior and has since recovered. Sadly, the friend who advised alcohol as treatment for diabetes has since died:

“Some people say that if you have diabetes you need to drink strong alcohol.....I followed somebody like that but I nearly died. The idea was to drink and forget the stress associated with disease but that does not help. You will rather die out of that. That my friend who asked me to do it has died but I am alive, so there are so many misconceptions about this disease but we need to avoid such misconceptions. They do not help” (P5)

This coping method was particularly in reference to participant 5 who was always “aggressive” in her actions and so tried to use alcohol as a cover of her predicaments in order to forget about anxiety associated with the condition but taking to alcohol did not help her. This and other misconceptions are deeply rooted in the cultural practices of Ghanaians, with the practice posing a threat to life. As a nurse, I have observed some patients who come to clinic for treatment but being observed as intoxicated at times. Health education and

counselling are offered in such instances. Any intervention programmes to help people living with diabetes will also need to focus on these common misconceptions and poor health practices. Failure to address these misconceptions in any such intervention programmes may render the programmes limited to achieve programme aims and objectives.

d) - Suicidal thoughts

Respondents perceived to have been blamed by family and/or community members as causing their own disease as a result of spiritual powers resulted in plans to end their lives through suicide. However, a belief in God and hope of cure prevented suicide from being a real option:

“Since I had this disease many people in my community have blamed me of this chronic disease as a result of my own powers of witchcraft, even within my own family. In my case for instance some of my sisters and brothers accuse me of being a wizard. In fact at times when I am confronted with all these situations, I plan of suicide but I look up to God for inspiration and cure” (P21)

4.9iv. - Alternative Coping Strategies

These were not general but specific coping strategies employed by the participants to manage specific issues associated with living type 2 diabetes, and so these coping strategies were limited to particular participants, and not linked to participants' socio demographic factors.

a) - Physical activity in coping

Five (5) respondents in this study mentioned that the use of exercise helped respondent to cope with and manage the condition. To these respondents undertaking exercise and eating the correct food became the `norm` in helping them to physiologically manage their diabetes. Respondents reported learning to undertake the type of exercise they could tolerate:

“That is normal, doing exercises, taking advice, and taking the right food. The exercise helps the blood glucose to go to body tissues to be used and that is very important to the management of diabetes. This is what they tell us at the clinic. These help me to live as a normal human being like someone who doesn’t have diabetes mellitus” (P2)

In contrast, participant 20 worried about possible weight reduction as a result of physical exercises, in that it could lead to stigmatization. Nevertheless, he continued to exercise to reduce his weight despite the comments on weight loss being associated with AIDS:

“ I am in the process of reducing my weight, which is also good as part of the management of diabetes but this is another challenge to me because people have associated my reduced weight to a condition like AIDS, so it is a big problem for me. I will continue to reduce my weight through exercises and forget about what they are saying” (P20)

Intervention programmes to help diabetics to personally manage the condition need to address the issue of stigmatization associated with weight loss, which appears prevalent in Ghanaian society. Such intervention programmes need to focus on rigorous public education around issues of stigmatization.

Physical activity and dieting are essential factors in regulating body weight in order to prevent post diagnosis complications of diabetes (Ministry of Health, Standard Treatment Guide for Ghana, 2010).

b) - Coping with Stigmatization

Seven (7) respondents reported experiences of stigmatization from the public following diagnosis. Respondents, experienced stigma from the public due for the most part to reduced weight associated with HIV/AIDS as previously identified. Participant 22 reported being

accused and abandoned of having AIDS due to severe weight loss. However, with assurances and advice from peers, family members, and reliance on members of the diabetics association for information and advice, self-confidence and improvement of self-esteem and striving to be independent this respondent managed to cope with being stigmatized in this way:

“With support and assurances from my peers, some family members, and carers I hope I will gain my weight and will not hear about these statements again. Diabetes is not an infectious disease so I do not understand why they continue to say that and to isolate from me” (P22)

On asking how respondent 21 coped with similar experiences of stigmatization due to weight loss, he mentioned reporting his experiences to the church pastor and the hospital counsellor, who subsequently gave advice and counselling:

“I have informed our church pastor and the hospital counsellor and he offered me pieces of advice about how to ignore such statements from people and to continue with my treatment. People with diabetes need support from their family members and friends in many ways. Individuals cannot manage diabetes alone unless they receive support from families and friends. Family and friends who care about you avoid stigmatization against affected people as it will not help in its management” (P21)

In Ghanaian society, to stare at somebody means either the person has done something wrong to you and one may want to retaliate or the person may be looking odd or different from normal. To the public a reduction in weight was not ‘normal’ and would therefore be attributed to a very devastating disease condition, namely HIV/ AIDS.

On asking of the response to being stigmatized in this way participant P23 also reported:

“They are speculating that I have AIDS so I did not take it serious because I know that I do not have such a condition. In town people will just stare at you as if there is something wrong with you. I do not care of what they say out there. I only pray that

this disease should go away. I know that God listens to prayers so He will take it away” (P23)

A student who experienced stigmatization from colleagues at school due to frequent hospital visits and having to leave the class to eat formed a close association with a group of students, who ensured he joined in all activities with them, for example singing group songs, attending scripture union meetings. Clearly having friends among the students served as an alternative coping strategy, at least against stigmatization:

“If I decide to isolate myself from them, I will have serious problem of loneliness, so I have decided to go on with my normal learning and also to play with them. Where they are singing I take part and we all do it together with equal strengthwe are all equal. So, because of this if you stigmatised me it will not have any effect on me at all. In the mornings and evenings we meet to learn about the word of God, which strengthen us spiritually to face all challenges in life” (P17)

It is evident from the respondents’ narratives that educating, counselling and emphasizing to all people that diabetes is not HIV/AIDS but is a metabolic condition characterized by weight reduction is key to reducing diabetes-related stigma. Intervention programmes need to take account of understanding of diabetes within the wider population, thus including public education around stigmatization in order to positively impact on the lives of people living with the condition.

c) - Coping with schooling and teaching

Students mentioned missing lectures because of frequent hospital visits for review of diabetes. Notes had to be provided when school was missed. Diabetics still at school needed a special diet from the school kitchen. According to one participant living with diabetes provided a challenge for student life in that he had to leave the class to eat and also to take medication. Despite these challenges, the respondent was able to cope with the condition as his father arranged for extra classes with his teacher, copied notes from his colleagues after

visiting the hospital, and also had the opportunity to discuss what was taught in class with the assistant teacher without a charge being levied. The respondent also benefited from group discussions organized by his classmates. In relation to diet, the respondent had an authority note from his doctor to the kitchen staff of the school to prepare a special diet for him:

“The doctor at the hospital has written a letter to the kitchen staff to prepare special diet for me. That is not a problem for me but the doctor said that I should not fast and I should not eat plenty at a particular time. My father also has been supporting me so much because he has asked my teachers to organised extra classes for me in English Language, Mathematics and other core subjects like Integrated Science and some of my Elective Subjects that I am not good at” (P17)

A teacher who was faced with a similar challenge at his work place, having to ask permission from school authorities to attend hospital appointments. This respondent requested permission in advance for the headmaster to arrange for another teacher to take his place:

“The school authorities have been informed about my present condition so when I am due to go for reviews, they give me permission to go and I have no problem with that. That has been helpful to me other than that I do not know how I will manage my condition with the teaching” (P23)

Both the student and the teacher received support, which contributed a sense of belonging and served as respite from the frustrations, anxiety, and stress suffered by many newly diagnosed diabetics.

d) - Humour and diversion strategies in coping

Respondents variously used humour to cope with the condition. Participant 7 in particular described using humour herself during stressful periods. This participant recollected interesting experiences in life and used that to create humour as a diversionary tactic:

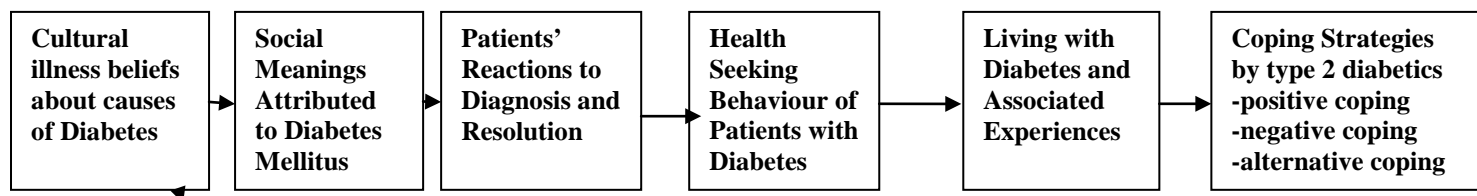
“I really create humour, make myself happy because I live alone now. So I recollect interesting things and laugh. You will think that I am playing with somebody, that is one of the happiest time in my life, I have to go off my books and laugh.....We become so happy and on the phone also when I am bored, I just start calling and then laughing with my friends and I think it has helped a lot, yes it has helped a lot, yes. You see that diabetes is a condition, which has come to stay, I do not have to allow it to control me” (P7)

In contrast participant 5 listened to music on a popular radio programme known in Ghana as ‘Toli’. This participant recounted using dance as a form of diversion. She expressed the view that whether she danced or not, the disease had come, so she had to dance to take some of her worries away which she expressed in the Ghanaian Akan Twi as ‘Mesao, mansao, yare no anya aba, enti ese se me sa na meyi madwene firi yare no so’:

“Even listening to the music in the wireless and also listening to humour in the wireless (Toli) is all part of taking care of one’s self. It takes the worry away. You can listen to the wireless music and feel happy, so that all stressful situations are taking away from you..... That actually takes my mind from the disease. If I laugh or do not laugh the disease has come, so I have to laugh to get good results for myself. At times I dance for my husband and the children to laugh. We all laugh and I think it takes my mind off the disease” (P5)

Diversion therapy appeared as an alternative coping strategy, which enabled respondents to disassociate from their disease state, albeit for a short period of time. Encouraging patients with diabetes to use humour and other diversionary techniques clearly helps at least some respondents to ‘cope’.

Now before we conclude the chapter, let us look at the relationship between the major categories identified in this study which defined the overall coping strategies employed by diabetic patients. This is depicted in figure 9 below.

FIGURE 9: THE RELATIONSHIPS BETWEEN CATEGORIES IDENTIFIED

4.10 - `Being Ghanaian` - use of language

‘Hmm’, ‘hmm’, ‘hmm’ sounds appeared in the narratives of five (5) participants when they were telling of their experiences of living with diabetes and how they were coping with the condition, since receiving a diagnosis. The use of such a sound in a Ghanaian context during speech is an indication of expressing a sense of sentiment about an unpleasant situation, which in this case showed how the participants were worried about their diagnosis and its associated problems. The use of such sounds is an indication that they may be emotionally disturbed and unstable. The use of such sounds is familiar to the researcher as a fellow `Ghanaian`, and indicated that for some respondents at least, a feeling of hopelessness had followed the diagnosis of diabetes, with the perception that diabetes signalled the end of life. All hope was gone; nothing could be done about the situation, except to try to manage or cope with diabetes or to do the best to control the condition.

As a Ghanaian researcher, the use of ‘hmm’, ‘hmm’, ‘hmm’ was recognised as phrases used as an attempt by individuals to seek attention during conversations, for example in one particular conversation whereby the participant was not happy with the current health care

situation and therefore needed attention or a form of help. Participant 6 used this sound at the beginning of his answer when he was asked about his reaction to diagnosis:

“Hmm, Hmm, hmm. I have already heard about this disease so when they said that I have diabetes I did not say a word because all the signs and symptoms were showing, I was drinking a lot of water, urinating at regular and frequent intervals, urinating plenty at night” (P6)

Clearly, this respondent was extremely worried about his condition. In Ghanaian society to say “I did not say a word” after hearing bad news indicates the serious nature of a diagnosis of diabetes. The participant would have understood the ramifications of the diagnosis and experienced the uncertainty associated with the condition.

Participant 26 used it when she was asked to share the challenges of living with diabetes after diagnosis:

“Hmm, hmm, it is not everything that I can say but what I like to say is that it has not been easy living with this condition. Right from the beginning of my diagnosis as a diabetic I have never been happy because of food that I am supposed to eat. We are asked to eat in small quantity at a time, which means wherever you go there should be food in my bag” (P26)

In this current thesis the following research questions were established to be addressed.

They were:

1. What are the coping strategies employed by patients newly diagnosed with type 2 diabetes mellitus?
2. What are the `lived experiences` of patients newly diagnosed with type 2 diabetes mellitus?
3. What are the perceived causes of diabetes mellitus from the perspectives of patients newly diagnosed with type 2 diabetes mellitus?

4. What meanings do patients, newly diagnosed with type 2 diabetes, attach to the diagnosis?
5. How do patients, newly diagnosed with type 2 diabetes, react to the diagnosis?
6. How can patients, newly diagnosed with type 2 diabetes be assisted to live productive lives, cope effectively with the problems associated with diabetes mellitus, and self-manage the condition?

Assessment of these questions show that the aims of this research have been achieved as the ultimate aim was to identify coping methods of patients newly diagnosed with type 2 diabetes. Critical look at the other questions indicate that, findings in their respect served as necessary factors to help arrive at the final coping methods as figure 14 above has already depicted these relationships. There was no objective or question which was not achieved in this research.

Conclusion

This chapter presented the findings from the study, which aimed to explore the experiences and subsequent coping strategies of newly diagnosed patients with type 2 diabetes mellitus at a general hospital in Ghana. In so doing the analysis identified a number of inappropriate perceptions but firmly held beliefs about the causes of diabetes held by the Ghanaian diabetic patients. Perceptions about the causes of diabetes are deeply rooted and embedded in the social beliefs and cultural fibre of Ghanaians. It is important to note that the demographic factors of the respondents, for example education, religion, marital status, length of diagnosis and age did not actually have associations with the findings of this study. Findings were individually determined by the participants based on their unique circumstances. However, social meanings ascribed to diabetes, reactions to diagnosis, living with diabetes, the concept of cure seeking and other challenges associated with the condition determined and significantly shaped subsequent coping methods employed by the newly diagnosed diabetic patients. The findings from this study have implications for healthcare practitioners in Ghana

and also in the Diaspora. There is the need to identify appropriate interventions for these `inappropriate` beliefs attributed causes of diabetes by the participants in the study who were all newly diagnosed. This is a monumental challenge to the healthcare providers in Ghana and the Diaspora, since they need to on the one hand recognise the right of patients to hold on to their beliefs without changing their world view, while at the same time encouraging and supporting patients to utilize `biomedical` healthcare and subsequent evidenced based health education for the treatment of diabetes mellitus.

The following chapter presents a discussion of the study findings in relation to relevant literature.

Chapter Five

Discussion

5. Introduction

In the discussion chapter, four main distinct groupings from the 27 respondents of this thesis with similar views are identified based on their age and educational status. These distinct groupings are:

1. Under 40 years with Secondary Education and Above Education
2. Under 40 years with Limited Formal Education
3. Over 40 years with Tertiary Education and Above Education
4. Over 40 years with Limited Formal Education

Each of these groups has been examined and a case study report written on each of the groups using the following 6 headings identified from the findings. These heading are:

1. Causes of disease/diabetes – belief systems about health and illness/diabetes
2. Cultural attributes of diabetes mellitus/Traditional beliefs regarding diabetes mellitus/Knowledge about causes of diabetes
3. Coping with a diagnosis of type 2 diabetes mellitus (patients' reaction to diagnosis of diabetes)
4. The continuum of treatment based on total supernatural belief system to total biomedical management of diabetes
5. Impact of diabetes mellitus/Life with diabetes mellitus
6. Coping experiences with diabetes mellitus (positive/negative/alternative coping methods)

The first part of this chapter considers case study report of typical views of each of the four groups relating to the 6 headings. This offers a lived experience perspectives or views of the respondents classified in groups above.

The second part of this section discusses how the groups differ relating to the 6 headings we have already mentioned. This will demonstrate comparative analysis of the groups which is then used to do the discussion to build on what the literature has identified and considering the importance of how age and education influence people's response to and cope with type 2 diabetes mellitus. At the end of the chapter is presented the evaluation of the model used in this study, whether it was able to address issues of coping which were raised or not, and identifying possible alternatives of models capable of addressing new issues which surfaced during the research.

The following section is case study reports of the respondents of this thesis as categorized under 4 groups as shown above regarding their views on causes of diseases - belief systems about health and illness. In some cases, the views of the 4 typical groups on the causes of type 2 diabetes overlap with each other. For instance views of participants under 40 years of age with secondary education on spiritual causes of type 2 diabetes may be similar with the three remaining groups.

Now, let us look at the belief systems regarding the causes of diseases with particular reference to type 2 diabetes among the 4 typical groups identified in this thesis. Thus the section presents case studies of "typical groups" among the 27 respondents on their views about causes of disease with particular reference to health and illness in relation to type 2 diabetes mellitus.

5.1 Theme 1 - Causes of diseases/diabetes – belief systems about health and illness/diabetes

5.1.1 Views of Under 40 years with Secondary Education and Above Education on Causes of disease/diabetes – belief systems about health and illness

For individuals in this group, their views on health and illness with particular reference to the development of type 2 diabetes mellitus were centred on spiritual, genetic and obesity as major cause of the condition. Below are perceptions on the spiritual, genetic and obesity as some of the sources of type 2 diabetics among the respondents under 40 years with secondary education and above education.

5.1.1.1 Spiritual, Genetic and Obesity as causes of Type 2 Diabetes Mellitus

Their account of the spiritual cause of type 2 diabetes was based on fact that the public including the family accused them of causing diabetes to their own selves through spiritual means. They also have the view that type 2 diabetes is developed due to genetics as it runs in families. In addition, this group of type 2 diabetics mentioned that diabetes results from obesity as a result of poor lifestyle such as physical inactivity, consumption of too much fat and alcohol.

The next section looks at the views of under 40 years of age with limited formal education on causes of diseases with particular reference to diabetes mellitus which centre on consuming too much sugar, poor farming practices, food crops become contaminated due poisoned agro chemicals, blood borne disease, and spiritually causing diabetes as sources of diabetes.

5. 1.2 Perceptions of Under 40 years with limited formal education on Causes of disease/diabetes – belief systems about health and illness

5.1.2.1 Beliefs on consuming too much sugar, poor farming practices, food crops become contaminated due to poisoned agro chemicals, blood borne disease, and spirits causing diabetes

Participants under 40 years with limited formal education had perception that type 2 diabetes was sold to them in a spiritual manner by an envious person who believed that they were hard working and for that matter their developments in life was to be crippled. Similarly, it was noted that they reported being accused of having spiritual powers to cause diseases to themselves. In addition, within group analysis, respondents under 40 years of age and with limited formal education had the view that none of their parents had diabetes so it was wondered why they should get diabetes.

These group members also had the view that diabetes is in the blood as a blood borne disease which can be transferred to another person but not as a genetic condition. Similarly, they mentioned and noted that there is something in the abdomen of every person which causes diabetes if it is not functioning well.

The group members also held the view that due to poor farming practices, food crops become contaminated due to poisoned agro chemicals which are used to spray food crops to induce early ripening. People consume these poisoned foods and develop diabetes in the future according to these individuals.

The group members also noted that consuming too much sugar is a source of diabetes. That is eating foods containing sugar leads to the development of diabetes according to the group members with under 40 years of age and with limited education.

The following section looks at the position of over 40 years with Tertiary Education on Causes of disease – belief systems about health and illness on spiritual, biomedical, consuming too much sugar in diet, life style and other factors for diabetes development.

5. 1.3 Position of over 40 years with Tertiary Education on Causes of disease/diabetes – belief systems about health and illness

5.1.3.1 Spiritual, biomedical, consuming too much sugar in diet, life style and other factors for diabetes development

Their perceptions on the causes of type 2 diabetes lingered around spiritual, biomedical, consuming too much sugar in diet, life style and other factors.

On spiritual causes they mentioned that family members with mystical powers can cause type 2 diabetes to other people in the same family. They also held the view that, individuals get diabetes due to biomedical factors as a result of malfunction pancreas which is not able to produce insulin. This group also noted that through toxic food consumption such as by means of use of agro chemicals for spraying of food crops, the consumption of such foods may lead to poisoning of vital organs including pancreas which may render it ineffective to produce insulin for the body. In addition eating too much sugar in a diet was also implicated in this respect to lead to the development of type 2 diabetes according to this group of respondents. This group also observed that, lifestyle among individuals was a major factor in causing type 2 diabetes as drinking of alcohol, lack of exercises and consumption of too much fat are responsible for causing diabetes mellitus in individuals.

They also pointed out that individuals may develop type 2 diabetes if they walk across affected person's urine and also sleep with someone who has the condition on the same bed.

The following section focuses on position of over 40 years with Limited Formal Education on Causes of disease – belief systems about health and illness on spiritual factors, consumption of foods assumed to be toxic, and use of too much sugar in foods.

5. 1.4 Position of over 40 years with Limited Formal Education on Causes of disease/diabetes – belief systems about health and illness

5.1.4.1 Spiritual factors, consumption of foods assumed to be toxic, and use of too much sugar in foods for diabetes development

Their account on the causes of diseases in terms of diabetes were loitered on spiritual factors, consumption of foods assumed to be toxic, and use of too much sugary in foods. The spiritual causation of diabetes was assumed to be from persons with spiritual powers such as witches and wizards in one's family who have the power to cause mayhem to other people in the family by inflicting ill health on them.

The next section considers comparative analysis of the typical groups among the 27 respondents of this study based on age and educational status. The essence of this categorization of the respondents is to facilitate discussion in the subsequent section, so that we are able to understand which group's behaviour is particularly linked to the previous findings in the literature review or stands on its own as a new finding.

5.1.5 Comparative Analysis of the Typical Groups Based on Age and Educational Background of Respondents Regarding Causes of diseases/diabetes – belief systems about health and illness/diabetes

Comparative analysis indicate that all the respondents in the various age groups as indicated above with varied educational backgrounds show that they have common perceptions regarding spiritual cause of type 2 diabetes mellitus. They all emphasized that envious persons in one's family are the people who may cause diabetes in the affected persons in a spiritual manner. However, participants who were under 40 years with secondary education and above education, as well as those under 40 years with limited formal education and respondents over 40 years of age with tertiary education noted that they were accused as causing their own diabetes because they have spiritual powers such as witchcrafts to cause harm to themselves.

Respondents categorized under 40 years with secondary school education and above education noted that diabetes is a genetic disease as parents who suffer diabetes may have their offsprings develop the condition but those under 40 years with limited education observed that type 2 diabetes develops due to malfunctioning organ in the abdomen without necessarily mentioning defective pancreas as a major source of the problem. However participants over 40 years with tertiary education explained that diabetes comes about as a result of a diseased pancreas which is not able to produce enough insulin for the body. The participants over 40 years with limited formal education however did not indicate their understanding of biomedical cause of type 2 diabetes mellitus.

Poor lifestyle as a cause of type 2 diabetes was reported by the participants under 40 years with secondary education as well as respondents over 40 years with tertiary education. Their reasons rest on the fact that in Ghana drinking of excessive alcohol and too much consumption of fat and lack of exercises contribute to the development of obesity and its

attendant type 2 diabetes. However, the respondents over 40 years with limited education as well as those under 40 years of age with limited education did not mention lifestyle as a cause of type 2 diabetes mellitus. Additionally, participants under 40 years with limited education, over 40 years with tertiary education and over 40 years with limited formal education noted that diabetes is developed in individuals who consume toxic foods such as fruits and vegetables and other food crops sprayed with agro chemicals and are considered poisonous and injurious to the body. However participants under 40 years of age with secondary education background were silent on this factor.

Other causes of type 2 diabetes was reported by respondents over 40 years of age with tertiary education which centred on crossing urine of an affected person or sleeping with someone with type 2 diabetes. None of the other respondents within the rest of the categories mentioned this factor. However it was noted that the participants who mentioned this factor were not straight forward as they alleged that “some people think that way” but not them.

The section below considers discussion of the findings of the current thesis using the typical group differentiations based on age and educational status of the respondents as well as other factors which are essential for the discussion.

5. 2 Theme 2 - Discussion of Causes of diseases/diabetes – belief systems about health and illness/diabetes using the views of typical groups

People in every culture have their own way of defining health and illness situations as we have already noted in the literature chapter. For instance cultural beliefs that are held by patients in line with health and illness sturdily control their perceptions about diseases and treatment choices available to them. Findings from the typical groups analysis in the current thesis are similar with Chew, Tan and Ooi (2011) as we discussed in the literature review that

participants in a Chinese study held the perceptions that “too much heat” or “too much cold” in the body of a person can lead to a disease condition, whereas “too much wind” in the abdomen can cause “abdominal pain” and “joint pains” respectively, and that consuming particular foods like watermelon may make it possible for “too much wind” to be directed or moved into the person’s body, and also eating certain meals such as ginger or garlic can remove the air from the intestines (Chew, Tan and Ooi, 2011). However, Chew, Tan and Ooi (2011) did not differentiate on any age or educational criteria in explaining these Chinese traditional concepts or perception of how diseases are developed. What the current thesis is showing is that the respondents in each of the “typical groups” have demonstrated their specific perceptions on the causes of type 2 diabetes, however there are overlaps in their views about the causes of type 2 diabetes. For instance the belief that crossing someone’s urine or sleeping with someone with diabetes will cause diabetes mellitus is more pronounced in the respondents over 40 years of age with tertiary education. Similarly, all the participants in the four groups including participants who were under 40 years with secondary education and above education, as well as those under 40 years with limited formal education, respondents over 40 years of age with tertiary education and participants over 40 years with limited formal education mentioned that that jealous individuals in one’s family are the people who may cause diabetes in the affected people through spiritual means in a dream or by means of food offered to the affected individual and during this time the disease condition is given out to the victim. Though the words used in the two situations, Chew, Tan and Ooi (2011) and the current thesis to explain the causes of diseases and type 2 diabetes respectively are different, however these are understood in their cultural sense, in Chinese and Ghanaian contexts respectively. In the comparative analysis of the “typical groups” based on age and educational background of respondents in the preceding section, several perceptions regarding causes of type 2 diabetes were identified among these groups but what

we need to understand is that they carry cultural meanings and context specific for Ghana but notion they carry are similar to what we have in the Chinese context shaped by culture as shown by (Chew, Tan and Ooi, 2011).

In the literature chapter we mentioned that Kottak (2008) on cultural health beliefs characterized disease causal theory under three (3) main classes as “naturalistic, personalistic and emotionalistic” (Kottak, 2008). The “naturalistic” disease theory demonstrates that diseases occur due to disequilibrium in the body because of specific micro organisms or pathogens or due to a medical cause, for example by bacteria or parasite or a virus. Personalistic disease model indicates that causes of diseases are attributed to supernatural beings, witches, human beings, sorcerers, non humans and similar forces, but emotionalistic disease conditions or illness theory demonstrates that diseases are caused by strong feelings or emotions which affect persons. The findings in the current research build on what Kottak (2008) found as defined in the categorization of the three major pathways by means of which persons contract disease conditions. For instance, the findings in the current study indicate that type 2 diabetes results from biomedical causes or lifestyle factors which are in line with the naturalistic explanation of disease causation in which clear pathophysiological processes are identified as to how target organs are affected by specific factors such as viruses, bacteria, parasite or a similar factor, however Kottak (2008) does not show any age or educational differentiations of the respondents. However in the current thesis, this finding is peculiar or pronounced in the respondents under 40 years with secondary school education and above education noted that diabetes is a genetic disease as a result parents can transfer it to their offsprings but those under 40 years with limited education pointed out that type 2 diabetes develops owing to malfunctioning organ in the abdomen, however they failed to mention the defective pancreas as a major factor. However, participants over 40 years with tertiary

education noted that that diabetes results from as a diseased pancreas which is not able to manufacture adequate insulin for the body. Similarly, in the current thesis, it was also found that human beings are perceived to have witchcraft influence, and other similar powers which are used to cause type 2 diabetes in other people and this is common among participants under 40 years with secondary education and above education, respondents under 40 years with limited formal education, participants over 40 years of age with tertiary education and respondents over 40 years with limited formal education. However, participants under 40 years with secondary education and above education, as well as those under 40 years with limited formal education and respondents over 40 years of age with tertiary education mentioned that they were accused of causing their own type 2 diabetes due to the fact that they have spiritual powers such as witchcrafts and other supernatural powers to cause damage to themselves. The idea behind this concept of disease causation in individuals is similar to what Kottak (2008) demonstrates under personalistic disease model but did not take into consideration any age or educational factors of the respondents. As much as the current thesis identified personalistic as well as naturalistic factors to explain disease development in individuals with type 2 diabetes mellitus, it did not find factors associated with emotionalistic model which is used to explain how conditions are caused by emotions such as anxiety, depression, strong feelings and other psychological factors (Kottak, 2008). The reason why the emotionalistic factors were not found in the current thesis is possibly due to the nature of the population being studied in the current thesis.

It was also discussed in the literature chapter that Helman (2001) noted four (4) main domains which can cause disease conditions in people as “factors within the individual themselves”, those within the natural setting or the environment which are perceived to be able to cause diseases to individuals, those regarded as social factors such as “interpersonal

stress, medical facilities and actions of other people” and supernatural factors including “God, destiny of people, and indigenous beliefs such as witchcraft and voodoo” may cause disease conditions in individuals (Furnham, Akande and Baguma, 1999; Helman, 2001). Realistically, these divisions by Helman (2001) have their respective equivalents as compared with the findings in the current thesis. The first factors identified by Helman (2001) as “within the individual themselves” such as depression, anxiety, frustration are not supported by the current thesis findings, possibly due to the nature of the respondents in the current thesis as well as the due to cultural differences. What Helman (2001) presented is a general model to explain how people get disease conditions irrespective of their cultural background but in the current thesis findings, age and educational attainment played a role in determining participants unique perceptions regarding causes of type 2 diabetes mellitus. The other factors are those within the environment which have the potential of causing diseases to people (Helman, 2001). In the current thesis, these may be referring to factors associated with contamination of food as pointed out by respondents under 40 years of age with limited formal education, those of over 40 years of age with tertiary education, as well as participants over 40 years with limited formal education. However, similar to Kottak (2008), as well as Chew, Tan, and Ooi (2011), Helman (2001) did not consider age or educational background of respondents as these could have influenced decisions of their respondents. Helman’s (2001) categorization under supernatural factors including “God, destiny of people, and indigenous beliefs such as witchcraft and voodoo” (Helman, 2001) share similar explanations of how diseases including type 2 diabetes are caused according to the findings of the current thesis such as people with spiritual powers, ancestors, gods and other such powers as mentioned by respondents under the four categories already noted above, those under 40 years with secondary education and above education, under 40 years with limited formal

education, over 40 years of age with tertiary education and under 40 years with limited formal education.

What this thesis brings on board is that, the belief in spiritual causation of type 2 diabetes is more common among all the typical groups in this study irrespective of age and educational differentiation. This may be due to the nature of the population who were recruited for this thesis as well as their cultural background as Ghanaian people who are so religious and seem to explain issues and events by dwelling on spirituality theories of causation (Assimeng, 2010).

The next section looks at the cultural attributes of diabetes from the perspectives of the typical group participants, commencing with participants under 40 years with Secondary Education and Above Education. The essence of these classifications based on age and educational attainment of participants is to recognize typical behaviour of participants in order to do meaningful discussion.

5. 3 Theme 3 - Cultural attributes of diabetes mellitus/Traditional beliefs regarding diabetes mellitus/Knowledge about causes of diabetes

5. 3.1 Analysis of Under 40 years with Secondary Education and Above Education on Cultural attributes of diabetes mellitus/Traditional beliefs regarding diabetes mellitus/Knowledge about causes of diabetes

Cultural attributes of the participants under 40 years with Secondary Education and Above Education on Cultural attributes of diabetes mellitus on chronicity of diabetes, diabetes as a family disease, diabetes as a sugar disease and as a bought disease is noted below.

5.3.1.1 Chronicity of diabetes, diabetes as a family disease, diabetes as a sugar disease, and as a bought disease

The analysis of under 40 years with secondary education and above education on cultural attributes of diabetes mellitus focused on chronicity of diabetes, diabetes as a family disease, diabetes as a sugar disease, and as a bought disease. The participants within this group gave these cultural and social meanings and attributes to diabetes based on how the condition was understood and lived with it. The chronicity of type 2 diabetes was described by the group members in terms of a condition which does not respond to treatment. Diabetes was also described as a family disease, a term which means that in social arena, diabetes is branded as a family “property or heritage” and as a sugar disease, a social term which represent a notion that diabetes has its source or origin from too much consumption of sugary foods and at the same time meaning too much sugar in the blood of an individual. They also noted diabetes as a bought disease, which means that diabetes has spiritual connotation in the sense that individuals can buy the condition from the open market in a spiritual manner.

The following section is about the views of under 40 years with limited formal education on cultural attributes of diabetes on diabetes as a demonic disease, devil’s disease, bad disease, chronic disease, family disease, disease of the wealthy, cursed disease, sugar disease and a bought disease.

5. 3.2 Views of Under 40 years with Limited Education on Cultural attributes of diabetes mellitus/Traditional beliefs regarding diabetes mellitus/Knowledge about causes of diabetes

5.3.2.1 Type 2 diabetes as a demonic disease, devil's disease, bad disease, chronic disease, family disease, disease of the wealthy, cursed disease, sugar disease and a bought disease

Their views on social and cultural attributes as well as traditional beliefs of diabetes mellitus centred on type 2 diabetes as a demonic disease, devil's disease, bad disease, chronic disease, family disease, disease of the wealthy, cursed disease, sugar disease and a bought disease.

These metaphors of type 2 diabetes according to the group members show the extent to which the condition is perceived by the sufferer based on what the condition can do to them as well as its source and the trajectory. For instance as a cursed condition, they perceived that those with the condition have been cursed to carry a chronic condition throughout life.

The next section is also about the attitude of over 40 years with tertiary education on cultural attributes of diabetes mellitus on diabetes as a demonic disease, bad disease, chronicity of the condition, diabetes as a family disease, and as a bought disease.

5. 3.3 Attitude of over 40 years with Tertiary Education on Cultural attributes of diabetes mellitus/Traditional beliefs regarding diabetes mellitus/Knowledge about causes of diabetes

5.3.3.1 Social/lay representation of diabetes as a demonic disease, bad disease, chronicity of the condition, diabetes as a family disease, and as a bought disease

As a demonic condition, they perceived that the condition is from demonic activities such as the work of somebody in the family who might have caused the condition in a spiritual fashion. Chronicity of the condition is related to the nature of the diabetes in which the affected person will take medication every day. The members in this sect or group also hold the view that diabetes is viewed as a bought disease in which the affected person is perceived to have bought the condition from a market in a spiritual realm. As a family condition, they noted that affected persons through the family or the genetic acquisition get the condition.

The subsequent section considers over 40 years with Limited Formal Education on Cultural attributes of diabetes mellitus on diabetes as a demonic/satanic as well as witchcraft disease, bad disease, and as a cursed disease condition. This is followed by comparative analysis of typical groups of respondents based on age and educational background.

5. 3.4 Attitude of over 40 years with Limited Formal Education on Cultural attributes of diabetes mellitus/Traditional beliefs regarding diabetes mellitus/Knowledge about causes of diabetes

5.3.4.1 Social/cultural representation of diabetes as a demonic/satanic as well as witchcraft disease, bad disease, and as a cursed disease condition

Their understanding and knowledge of social and cultural attributes of diabetes was demonstrated on meanings such as diabetes as a demonic/satanic as well as witchcraft disease, bad disease, and as a cursed disease condition. They felt that the condition is emanated from bad spirit that are possessed by certain family members or friends and other people who have some contacts with the affected person, hence diabetes is branded or given a connotation as a demonic/satanic or witchcraft disease because of its origin. As a bad condition, they felt that as demonic condition or because of its chronicity, diabetes can cause severe harm to the affected person. As a cursed disease, it is inflicted on people by an envious person in a spiritual manner to make them unhappy and to cause chronic depression and frustration as well as anxiety and other interruptions in the affected people.

5. 3.5 Comparative Analysis of Typical Groups of Respondents Based on Age and Educational Background Regarding Cultural attributes of diabetes mellitus/Traditional beliefs regarding diabetes mellitus/Knowledge about causes of diabetes

The group analysis indicate that cultural as well as social attributes of diabetes mellitus according to respondents under 40 years with secondary education branded type 2 diabetes as a chronic disease, family disease, a bought disease as well as sugar disease. Participants under 40 years with limited formal education acknowledged these as attributes to diabetes mellitus in addition to social meanings such as demonic disease, devil's disease, bad disease, chronic disease, disease of the wealthy, cursed diseases but respondents over 40 years with tertiary education did not attribute type 2 diabetes as a sugar disease. However, participants over 40 years with limited education were silent on diabetes as a bought disease, family disease, chronic disease and diabetes as condition of the wealthy but acknowledged diabetes as a cursed disease which was not noted by participants over 40 years with tertiary education.

It appears that age and the level of education of the respondents did not seem to have any influence on the way social or cultural meanings were attributed to type 2 diabetes in the current thesis. This is because varied attributes of type 2 diabetes were given by the respondents which the researcher believes that probably cultural influence played major part in the social and cultural attributes of diabetes in this case. In the researcher's observation as a professional nurse in Ghana, the researcher has observed that irrespective of patient's background, issues associated with cultural and social connotations regarding health and illness are offered the same definitions and branding by Ghanaian patients.

The subsequent section considers discussions on cultural or social attributes with respect to type 2 diabetes based on the views of members of the typical groups defined in this thesis. The essence of the attributes for type 2 diabetes explains how the participants perceived type 2 diabetes.

5. 4 Theme 4 - Discussion on cultural health attributes using views of typical groups defined under cultural attributes of diabetes mellitus

In this thesis, participants under 40 years with limited formal education attributed type 2 diabetes mellitus to social meanings such as demonic disease, devil's disease, bad disease, chronic disease, disease of the wealthy and cursed diseases. These findings from the current Ghanaian thesis are consistent with Flaws and Sionneau (2005) on Chinese disease classification which identified diabetes as a demonic or satanic condition when treatment of diabetes in western context was compared with the Chinese traditional medical system in which it was found that diabetes originates from the spiritual world, the abode of demons and other supernatural beings. However, in Flaws and Sionneau (2005) no age and educational criteria was used to identify respondents with such ideas, but in the current thesis it is more

common among participants under 40 years with limited formal education. This belief may explain the reason why in the Ghanaian context, the cultural explanations of illness, healing, ineffective healing, or even death in some cases or situations are associated with bad spirits, demonic/satanic powers, mystical powers, individual(s) in the family group, friend(s), ancestors, or gods and other bad spirits. The findings in Flaws and Sionneau (2005) and the current thesis are the same because all of them demonstrate that diabetes is a demonic disease, satanic or devil's disease because all the 2 studies explain that diabetes has its source from the demonic world or from a person perceived to be living in the supernatural world. Though Flaws and Sionneau (2005) did not identify other social meanings of diabetes as we have seen in the current thesis such as bad disease, chronic disease, disease of the wealthy and cursed disease, they are equally on the same level as demonic or satanic disease as identified by Flaws and Sionneau (2005). The differences may be due to nature of population which was used in the studies based on their culture. This has been buttressed by Downe-Wamboldt, Butler and Coulter (2006) that social or cultural meanings of illness or health is determined by the people who experience the condition based on their cultural or social experiences as well as educational level, economic and psychosocial factors to mention a few (Downe-Wamboldt, Butler and Coulter, 2006).

Similarly, respondents under 40 years with secondary education in the current thesis branded type 2 diabetes as a chronic disease, family disease, a bought disease as well as sugar disease. The findings revealed diabetic patients as victims perceived to have 'bought the disease' from an open market place. Similarly, this social meaning of diabetes mellitus concurs with Dennis Antwi (2006) who found six main lay discourses on Sickle Cell Disease (SCD) including SCD as a bought disease. Other discourses included SCD as a cause of early death, a financial drain, SCD as a social stigma, SCD as a source of despair and the cause of recurrent

death; however age as well as educational differentiation as a criterion in their coping methods were not indicated by Dennis Antwi (2006). As 'bought disease', genetic causes are scarcely considered as a possible explanation even in the face of a family history of diabetes mellitus and sickle cell respectively. Heredity is distant perception and diabetes is ascribed and portrayed as a family curse. This classification places it under a spiritual or religious cause whereby witches and spiritual powers are perceived to have paid for the disease and inflicted it upon the individual sufferer of diabetes. By this infliction, the power responsible is supposed to receive a form of fulfilment for performing that spiritual act. In African societies, it is believed that witches live in the "unseen world" or "the spiritual world" where they perform various noxious activities against human beings (Assimeng, 2010). It is also believed that in the spiritual world, the witches and wizards meet on top of big trees where they perform the various nefarious activities. The belief in witchcraft is widespread in African societies irrespective of peoples' religion, ethnicity and educational status (Assimeng, 2010). The effects of witchcraft attacks on individuals are not identified until disease condition sets in with clinical manifestations such as those associated with diabetes as well as other conditions (Richards, 2002). Under such situation the affected person decides to look for treatment from spiritualist or a faith healer or herbalist and other sources (Richards, 2002). The use of bought disease to represent and describe type 2 diabetes in the current Ghanaian study and also SCD in Dennis Antwi (2006) carry the same meanings and ideas. This is because in each of the studies, the idea was that type 2 diabetes or SCD were both perceived by the participants that the conditions were sold to them in a spiritual sense. The findings of the current thesis as compared with Flaws and Sionneau (2005) and Dennis Antwi (2006) are all looking at common social meanings but from different disease perspectives. For example, whereas the current thesis and Flaws and Sionneau (2005) focused on bought disease as associated with type 2 diabetes, Dennis Antwi (2006) study looked at bought disease linked

with SCD but both Dennis Antwi (2006) and Flaws and Sionneau (2005) failed to classify participants by age and educational criteria.

Participants over 40 years of age with limited education as well as those under 40 years with limited formal education noted type 2 diabetes as a “cursed disease”. Participants in Rahim-Williams’ study in 2011 also referred to diabetes mellitus as a ‘frightening disease’, “diabetes is a nightmare’, ‘scary disease’, ‘silent killer’, ‘doing a battle’ and a ‘curse’ because of its debilitating effects on people living with the condition. Though these findings are different from those identified in the current Ghanaian thesis except the “curse”, they point to how individuals who are affected by the condition perceive it. In my interactions with diabetics and other patients as a practicing nurse in Ghana, the researcher has observed that, in Ghanaian sense, cursed disease is a disease which has no cure and therefore has poor diagnosis. Such diseases are believed to be caused by supernatural powers and therefore for such diseases treatments are based on spiritual approach. This meaning of the condition in Ghana is shaped by the cultural beliefs of the people. As a cursed condition, it goes beyond affecting only one individual member of a family. It means that as a cursed disease if a family member gets it as a result of past sins for instance it can have a rippling effect on other members of the entire family as a curse. The social or cultural term “cursed disease” (*duabo yare*) was therefore used to stand for diseases such as diabetes in Ghanaian context. The cultural context of diabetes as a cursed condition in Ghana is similar to how Rahim-William (2011) applied the term among African Americans, since it also explains how diabetes is perceived by these individuals in terms of what type 2 diabetes can do to them considering its damaging as well as debilitating effects. Under cultural and social meanings attributed to diabetes such as demonic disease (Flaws and Sionneau, 2005), bought disease (Dennis Antwi, 2006) and curse (Rahim-William, 2011) as well as (demonic disease, bought disease and

cursed disease) identified by the current thesis, are all the same as they describe and explain the nature as well as source of the condition in terms of traditional sense. It is on this note that Bury (1997) noted that social meanings individuals attach to disease conditions are derived based on the extent of the problem being experienced such as the disability as well as social cost associated with the condition. Similarly in Rahim-William (2011) research work, ages as well as educational attainment of respondents were not compared with their social meanings ascribed to the condition. What the current thesis adds to knowledge is that ages as well as educational status were prominent in determining their respective social meanings given to diabetes.

Awah, Unwin and Phillimore (2008) also noted that diabetes was referred to as a 'curse' by traditional health practitioners, inflicted on individuals as a form of punishment to bring order and to mete out justice and fairness in society. In this case, diabetes is seen as an expression of a curse of the affected individual and the entire family that the person belongs to. This is similar to what the current thesis and Dennis Antwi (2006) identified but Awah, Unwin and Phillimore (2008) portrayed diabetes as a curse, a form of punishment to bring justice and order in society due to one's wrong doing. As a measure to promote social order and justice in most African traditional communities, fear of curses in the form of diseases move people away from committing social vices such as robbery and others. In my interaction with patients as a nurse in Ghanaian society, the researcher has noted that patients have common belief that bad or good deeds of people follow them in life and these can have ripple effects on their entire family and the generations to come. It is based on this belief that people with diabetes mellitus are perceived to have been afflicted with a chronic devastating condition due to their bad deeds or past sins against fellow human beings, gods, or any other supernatural powers. In this case it is considered as a cursed disease to the individual afflicted and the entire family unit that the individual belongs. Diabetes is therefore socially

constructed in terms of how these thesis participants understood it in terms of how it is developed, forms it takes, complications it can cause, sources of it and its nature which are deeply rooted in the socio-cultural beliefs of Ghanaians, for example belief in the witchcraft or other supernatural powers and others.

Similarly, Abdoli (2011) also investigated Iranian's perceptions and sense of meaning of diabetes and identified two main aspects of explanations respondents attached to the condition. First and foremost, participants attached negative connotations for the condition, which were evident in meanings such as a dreadful condition which disempowered persons and endangered their freedom. Other meanings associated with diabetes mellitus centred on terms such as, "silent killer", "defect point" and "worse than cancer". On the other hand, some of the participants gave a more positive connotation and views about diabetes. Positive views about diabetes in their explanations, perceived diabetes as a "high-risk baby" which needed to be cared for, and looked after or nurtured, an opportunity for positive transformation if one had diabetes. The respondents perceived diabetes as a chronic, devastating, dreadful and distressing condition. The apprehension and fear of developing serious and chronic complications as well as associated disabilities, and having to depend on other individuals for support was the primary reason for considering the condition as a dreadful and terrible illness. The sense of meanings attached to connotations given to diabetes by participants in Abdoli (2011) are similar to what other researchers such as Dennis Antwi (2006), Rahim-William (2011), Awah, Unwin and Phillimore (2008) and the current thesis has given to diabetes mellitus as they all demonstrate negative connotations of diabetes. However, it is only Abdoli (2011) which identified positive connotations of diabetes such as diabetes as a "high risk baby" which needed extra care. In a sense, it is important for diabetics to take all serious measures to manage the condition as it is important to give the condition undivided attention.

In all the three studies shown above, Awah, Unwin and Phillimore (2008), Dennis Antwi (2006) and Abdoli (2011), none of them showed age or educational differentiation as criteria to classify their social meanings. It is only the current study which adds age and educational background to determine participants' responses on social meanings applied to their diabetes.

Misconceptions and beliefs about diabetes from which some of the social meanings of diabetes mellitus were identified are social phenomenon which may work against controlling and prevention of diabetes in Ghana. Therefore, understanding of the people's knowledge about the causes of diabetes and social meanings ascribed to the condition will determine what kind of care to be rendered to the individuals who are affected by the condition. That is, their care needs to be tackled according to socio-cultural beliefs and attitudes prevalent in Ghanaian societies.

The ensuing section looks at the coping reactions of typical group respondents following diagnosis with type 2 diabetes mellitus.

5. 5 Theme 5 - Coping with a diagnosis of type 2 diabetes mellitus

5. 5.1 Coping with a diagnosis of type 2 diabetes mellitus (patients' reaction to diagnosis of type 2 diabetes) among the Under 40 years with Secondary Education and Above Education

The following section considers coping reactions of typical group participants under 40 years with secondary education and above. First, participants' reaction based on familial history.

5.5.1.1 Reaction of participants based on familial history

The individuals among this group reacted to the diagnosis of diabetes based on the fact that their parents were known diabetics and for that matter they were not so worried upon

diagnosis. This is because they thought that as familial condition children of affected parents can also have the condition.

The next is a reaction of participants over 40 years with Tertiary Education whose reaction was based on knowledge of type 2 diabetes.

5. 5.2 Coping with a diagnosis of type 2 diabetes mellitus (patients' reaction to diagnosis of type 2 diabetes) among the over 40 years with Tertiary Education

5.5.2.1 Reactions of the participants based on knowledge of type 2 diabetes

Their reaction during diagnosis of the condition was based on what they knew about the condition, as well as what they have read about diabetes and what it can do to them. For instance a nurse and a social worker, as well as a graduate teacher from a university who spoke eloquently about what diabetes can do to the affected individuals reacted by saying “they know what is ahead of them with diabetes”.

The next is a reaction of participants over 40 years with limited formal education whose reaction was based on parental diagnosis as diabetics/Reactions as diabetes is perceived as a punishment from God.

5. 5.3 Coping with a diagnosis of type 2 diabetes mellitus (patients' reaction to diagnosis of type 2 diabetes) among the over 40 years with Limited Formal Education

5.5.3.1 Participants' reactions based on parental diagnosis as diabetics/Reactions as diabetes is perceived as a punishment from God

Their coping with diagnosis with type 2 diabetes in terms of reaction among the respondents with over 40 years of age and with limited formal education were based on issues such as their parents were diabetics and so when they were diagnosed as having diabetes, they were not worried. Others also had in mind that, they had done something wrong against gods, and so their diabetes was perceived as a punishment from the gods of their families or from God. The next section is about the comparative analysis of the typical groups under reaction to diagnosis.

5. 5.4 Comparative Analysis of Typical Groups of Respondents Based on Age and Educational Background Regarding Reaction with a Diagnosis of Type 2 Diabetes Mellitus

Comparative analysis demonstrates that varied reactions or coping with diagnosis among the respondents were identified in this research. For instance among the Under 40 years with Secondary Education and Above Education and among the over 40 years with Limited Formal Education, their parents were diabetics and so when they were diagnosed as having diabetes, they were not worried. However among the Under 40 years with Secondary Education and Above Education, they were shocked as they had seen people with diabetes who developed problems or complications. However among those over 40 years with Tertiary Education their reaction was based on what they had learnt about the condition through what they had read as well as based on their professional knowledge and so they knew what was ahead of them. However among those over 40 years with Limited Formal Education had in mind that, they had done something wrong against gods, and so their diabetes was perceived as a punishment from the gods of their families or from God.

Comparative analysis of the groups in the various categories clearly indicated that age as well as educational background of the respondents did determine their reactions to diagnosis. For instance respondents over 40 years with tertiary education background reacted based on what they had learnt through their profession as well as through casual reading. However, other groups' reactions were based on their experiences with situations surrounding type 2 diabetes over the years.

The next part looks at the discussion on coping with a diagnosis of type 2 diabetes mellitus using typical groups.

5. 6 Theme 6 - Discussions on Coping Reactions with a Diagnosis of Type 2 Diabetes Mellitus using Typical Groups

The research by Ijaz and Ajmal (2011) as previously discussed in the literature review found diabetics' reactions based on "diabetes related distress, perceived severity of the condition which centred on "irritability, fear, depression, anger, weeping, tension, sadness, irritability, shock, regrets, hopelessness and denial" as well as "hopelessness and disappointments" in treating their diabetes because despite the treatment of their diabetes with insulin injections in the morning, afternoon and evening there were no improvements which made them despair and depressed (Ijaz and Ajmal, 2011). This was not supported in this thesis, however findings of the current thesis show that participants under 40 years with Secondary Education and Above Education and among the over 40 years with Limited Formal Education, noted that their parents were diabetics and so when they were diagnosed as having diabetes, they were not worried and so no processes of reactions were recorded. However, in Ijaz and Ajmal (2011), it was identified that the participants in that study actually showed many emotional

reactions such as “irritability, fear, depression, anger, weeping, tension, sadness, irritability, shock, regrets, hopelessness and denial” similar to reactions identified and shown by Kubbler-Ross and Kessler (2005). However, in the current thesis, among the under 40 years with Secondary Education and Above Education, they were shocked because they had seen people with diabetes who developed problems or complications, nevertheless, their nature of reaction did not show all the five processes of reaction or grief as pointed out by Kubbler-Ross and Kessler (2005). These differences were identified possibly due to the nature of participants’ experiences living with the condition which led to unique reactions. Participants in Ijaz and Ajmal (2011) research were of Pakistani background probably with different experiences living with diabetes which elicited particular reactions as compared with Ghanaian type 2 diabetics. However, Ijaz and Ajmal (2011) did not assess whether age and educational level of participants affected their way of reaction. In this current thesis, age and educational factors helped us to recognised unique reactions of the participants based on these classifications.

It should however be noted that in Ijaz and Ajmal (2011), patients’ reactions based on “diabetes related distress, perceived severity of the condition, and positive emotional reaction, friends and relatives reactions” (Ijaz and Ajmal, 2011) were specific coping reactions to the condition experienced by the participants in their study just like how the Ghanaian type 2 diabetic expressed their unique reactions based on individual differences. For instance among the over 40 years with Tertiary Education their reaction was based on what they had learnt about the condition through what they had read as well as based on their professional knowledge and so they knew what was about to confront them.

Similarly, among those over 40 years with Limited Formal Education had in mind that, they had done something wrong against gods, and so their diabetes was perceived as a punishment

from the gods of their families or from God. The general impression from the literature seems to suggest that reaction to a diagnosis of chronic condition, such as diabetes is individually defined based on the unique experiences but the processes they go through is what has been defined by Kubbler-Ross and Kessler (2005) as “denial, rage or anger, bargaining, depression and acceptance”, but is not everybody who goes through these processes. However, in a Brazilian study of women with type 2 diabetes it was also noted that several feelings and emotional reactions following diagnosis of type 2 diabetes mellitus including “rage, anger, sadness, fear, shock and fright as we have noted in the literature review (Peres, Franco and Santos, 2008). Similarly, in a qualitative research to explore perceptions, attitudes and experiences of diabetics in Buffalo as we have noted in the literature review, it was observed that emotional reactions to diabetes were similar to Kluber-Ross and Kessler’s stages of grief processes; on the other hand an aspect of fear was added to denial by Kahn et al., (2013) as their first stage of the grief process. Comparatively, findings from the current thesis regarding participants under 40 years with Secondary Education and above were “shocked” as they had seen people with diabetes who developed complications. Though it is an emotional reaction but “one stage phenomenon” of reaction among this group of participants, as compared with what has been demonstrated by Peres, Franco, and Santos (2008), Kahn et al., (2013) and Kubbler-Ross and Kessler (2005), which have well defined stages of reaction to diagnosis or situations. What this thesis adds to knowledge is the influence of age and educational level of participants and how that affects their type of reaction but it is equally important to note that reaction of the participants in this thesis was purely based on individual unique experiences. The findings from these studies including the current thesis are important as healthcare providers need to know these reactions in their patients in order to recommend the necessary support and care.

The subsequent sections focus on the continuum of treatment based on total supernatural belief system to total biomedical management of diabetes, considering views of participants under 40 years with secondary education and above education, under 40 years with limited formal education, over 40 years with tertiary education and over 40 years with limited formal education. This is followed by comparative assessment of the typical groups within the continuum of treatment based on total supernatural belief system to total biomedical management of diabetes. The section ends on discussion of findings pertaining to the typical groups with regards to the treatment options available to diabetics.

5. 7 Theme 7 - Continuum of treatment based on total supernatural belief system to total biomedical management of diabetes

5. 7.1 A case study of views of Under 40 years with Secondary Education and Above Education on the continuum of treatment based on total supernatural belief system to total biomedical management of diabetes

5.7.1.1 The use of only biomedical therapy and a shift from biomedical treatment to spiritual therapy

The treatment options the group members decided on focused on the total biomedical therapy upon diagnosis as well as moving from biomedical treatment to spiritual treatment including herbal, prayers and faith healing systems.

5. 7.2 A case study of views of Under 40 years with Limited Formal Education on the continuum of treatment based on total supernatural belief system to total biomedical management of diabetes

5.7.2.1 Combining biomedical treatment and spiritual therapy for the management of type 2 diabetes

It was noted among these group members that treatment options preferred by them centred on combining biomedical treatment and spiritual therapy among other treatments available to them as patients newly diagnosed with type 2 newly diabetes mellitus. In this sense, it was perceived by them that the combination of biomedicine and spiritual treatment were good for the treatment of a condition.

5. 7.3 A case study of views of over 40 years with Tertiary Education on the continuum of treatment based on total supernatural belief system to total biomedical management of diabetes

5.7.3.1 Variations between the use of biomedical, combining biomedical and spiritual and the use of prayers, fasting as well as the use of herbal treatment for diabetes

Their options for treatment were varied between biomedical, combining biomedical and spiritual and the use of prayers, fasting as well as the use of herbal treatment among the group members. However, the participants among the members of this category with health background such as the nurse and social worker, as well as one graduate teacher specifically limited their treatment to the biomedical regimen and protocol.

5. 7.4 A case study of views of over 40 years with Limited Formal Education on the continuum of treatment based on total supernatural belief system to total biomedical management of diabetes

5.7.4.1 The use of only biomedical therapy and combination of biomedical and spiritual and traditional medicine

Their treatment options were based on biomedical therapy, and this was for those who preferred to go on with treatment at the hospital following diagnosis instead of any other place. Others in this group also planned to have combination of biomedical therapy and the use of spiritual and traditional medicine to manage their diabetes.

5. 7.5 Comparative assessment of the various groups of respondents based on age and educational background regarding the continuum of treatment based on total supernatural belief system to total biomedical management of diabetes

Comparative analysis of the respondents' responses show that under 40 years with Secondary Education and Above Education initially relied on biomedical treatment before they moved on to spiritual therapy including herbal, prayers and faith healing systems. However, those under 40 years with Limited Formal Education focused on combining biomedical management and spiritual therapy to treat the condition. Similarly the respondents over 40 years with tertiary educational background combined biomedical treatment with spiritual management. Specifically those under 40 years with limited formal education were initially diagnosed at the prayer camps as well as herbalist camps and later did confirmation of diagnosis at the hospital. However participants such as nurses and social workers as well as professionals like police officers and fire officers among those over 40 years with tertiary education patronage only biomedical treatment and nothing else. Similarly, those respondents over 40 years with limited education also relied on only biomedical.

It appears that educational background and age of the respondents determined to some extent where the participants looked for treatment of their diabetes. Those participants such as a nurse and social worker and those with similar professional ranks such as a police and fire officer relied on hospital management but respondents over 40 years with tertiary education but who were not professionals combined biomedical treatment as well as spiritual treatment. In my opinion and observation as a nurse in Ghana, the researcher has identified that people are very ritualistic and spiritually inclined when it comes to disease management to the extent that even the highly educated individuals in many instances ignore medical treatment and rely on only traditional and spiritual treatments and the like.

5. 8 Theme 8 - Discussion of findings for the typical groups under treatment options following diagnosis

Similar to the findings of the current thesis, De Graft Aikins et al., (2012b) found that spiritual treatments were employed by patients to treat conditions such as sickle cell disease and epilepsy which are alleged to be caused by spiritual powers in Ghanaian context. This belief is similar to the assertion by the participants in the current thesis who fall within the three other groups, under 40 years with Secondary Education and Above Education, participants under 40 years with limited formal education, and participants over 40 years with tertiary education but not professionals used spiritual treatment apart from those with professional backgrounds such as the nurse and the social worker who perceived that it was necessary to opt for an aspect of traditional or spiritual therapy in order to manage their type 2 diabetes mellitus because it was believed that diabetes was caused by spiritual entities. The reasons are the same for each of these Ghanaian studies, however De Graft Aikins, in her 2005 work on “healer shopping” indicated that the reason for some of her participants to look for spiritual treatment basically rested on the fact that participants with lower financial base

decided to go in for spiritual treatment due to the fact that spiritual and traditional treatment is cheaper, whereas the participants from the affluent societies in the cities with diabetes rather opted for medical treatment at the hospital, which is similar with those in the current group who have tertiary education and at the same time with professional background such as a nurses and social worker, who opted for medical treatment for their diabetes mellitus.

Nevertheless, the age range of participants in De Graft Aikins work in 2005 were not disclosed, however the age of the participants in the current thesis were shown as over 40 years of age, which probably in addition to their educational background as tertiary graduates influenced their action and decision to opt for only medical treatment for the treatment of their type 2 diabetes mellitus. The advantage of the current thesis findings is that ages as well as educational attainment of the participants were considered, which makes it different from other studies that we have reviewed such as De Graft Aikins (2005) as wells as De Graft Aikins et al., (2012b).

Further, participants in the current thesis over 40 years with limited education hoped for total cure of their type 2 diabetes by reliance on God and spirituality and use of medical treatment of their type 2 diabetes. In these individuals, they used combined therapy, thus spiritual treatment and biomedical treatment to treat diabetes. Their reason was that, as a chronic disease such as diabetes mellitus, combination therapy can treat because the medical aspect of it can be taken care by the biomedical treatment but the spiritual nature of it can be treated with spiritual treatment. This finding is similar to perceptions by the participants in De Graft Aikins (2005) research who also noted that diabetes can be cured due to their belief that God can cure all chronic diseases. The participants of De Graft Aikins (2005) study were from low socio economic class but the participants in the current study were those over 40 years of age but with limited formal education which seem to be similar in character with the participants in De Graft Aikins (2005) study, hence their common action for cure seeking. Similar to the

participants in the current thesis, respondents in De Graft Aikins (2005) study also used combined therapy for the treatment of diabetes as they hovered between “ethnomedical and faith healing systems”, a treatment approach De Graft Aikins (2005) termed “healer shopping”. The difference is that whereas in De Graft Aikins (2005), participants opted for combination therapy in terms of “ethnomedical and faith healing systems” for type 2 diabetes, the participants in the current study used combination therapy for the treatment of diabetes in terms of “medical and spiritual” treatment, however age and education differentiation were significant in the current thesis, whereas in De Graft Aikins (2005) study age was not a factor which was considered in the participant’s decision of which treatment to be opted for.

We have already noted that combination therapy is essential to treat chronic diseases such as diabetes mellitus as we have noted in the current thesis and also noted by De Graft Aikins (2005) but Awah (2006) reports that chronic diseases are absent in African societies as it is believed that traditional healers have powers to cure all kinds of diseases including chronic ones. It is also believed that if a chronic condition is cured and clinical manifestations of the same disease appear again, then that disease should be considered as a “new bout” of the condition (Awah, 2006). This means that the concept of chronic disease does not exist in African culture from the traditional healers’ point of view. Realistically, what Awah (2006) is saying is not different from the findings of the current thesis as well as findings from De Graft Aikins (2005) regarding the ability of spiritual powers and God’s power to cure all chronic diseases respectively. All of them point to the same belief that spiritual powers either God or a lesser spirit is capable of curing diabetes in a spiritual manner in the African context.

The subsequent section considers the impact of diabetes on individuals from the perspective of typical groups as this is likely to ensure typical group discussion instead of generic or non-specific discussion.

5. 9 Theme 9 - Impact of diabetes mellitus/Life with diabetes mellitus

5. 9.1 Views of Under 40 years with Secondary Education and Above Education on Impact of diabetes mellitus/Life with diabetes mellitus

The section below looks at the views of participants under 40 years with secondary education and above education on the impact of type 2 diabetes which centres on fear of complications with the condition.

5.9.1.1 Fear of complications associated with type 2 diabetes

The case report of this group members with respect to life with diabetes centred on fear of complications associated with type 2 diabetes. As a chronic condition it was perceived by the members of this group that complications would occur. The members in this group also reported challenges living with the condition in terms of pain associated with daily injections, bored of taking medications daily and general restrictions imposed by diabetes including food demands and stress.

The subsequent section lingers on views of participants under 40 years with limited formal education on impact of diabetes mellitus/life with diabetes mellitus. This will focus on sexual dysfunction, stigma linked with body image, troubles with financial issues, and disruption associated with nutritional status.

5. 9.2 Views of Under 40 years with Limited Formal Education on Impact of diabetes mellitus/Life with diabetes mellitus

5.9.2.1 Sexual dysfunction, stigma linked with body image, troubles with financial issues, and disruption associated with nutritional status

The account of this group of respondents on the impact of type 2 diabetes centred on sexual dysfunction, disruptions associated with social distinctiveness in terms of stigma linked with body image, troubles with financial issues, and interruptions associated with nutritional status. They reported of sexual dysfunction as both men and women indicated that their push for sexual intercourse with their partners went down due the effect of diabetes. The interruptions to social image focused on accusation by the public that they either had HIV/AIDS. They also noted interruptions in their economic situations as a result of not able to work because of diabetes or due to meagre salary and also operational or functional problems associated with the national health insurance scheme, in which case they needed to pay cash for healthcare services at the hospital and health centres.

Interruptions to nutritional status focused on challenges associated with getting the prescribed food for diabetics and also at a high price in situations when it is available.

The following section centres on views of participants over 40 years with tertiary education on impact of diabetes mellitus/life with diabetes mellitus regarding fear of complications, stigma, social isolation, dietary restrictions and physiological changes with diabetes.

5. 9.3 Views of over 40 years with Tertiary Education on Impact of diabetes mellitus/Life with diabetes mellitus

5.9.3.1 Fear of complications, stigma, social isolation, dietary restrictions and physiological changes with diabetes

The members in this group had the view that, once diabetes set in, it was likely that complications would develop among the individuals affected but their hopes rested on God for intervention. In addition, these individuals also noted that they were stigmatized by the community members as a result of reduction in weight which was perceived by the public as having HIV/AIDS which in some cases led to social isolation among the individuals in this group.

Dietary control was difficult for them as they needed to take foods different from what people without the condition would take, such as the need to refrain from sugary foods as well as alcohol. The changes associated with physiological processes were the fact that they urinated too much, experienced frequent weakness and had to drink water frequently.

Other challenges among the members in this group were that they lacked glucometers and also challenges associated with asking for or getting permission to go to hospital for review with their doctors.

The views of typical groups on impact of type 2 diabetes ends with perceptions of participants over 40 years with limited formal education on impact of diabetes mellitus/life with diabetes mellitus relating to fear of complications, social isolation, financial, problems with normal physiological processes and non availability of glucometers.

5. 9.4 Views of over 40 years with Limited Formal Education on Impact of diabetes mellitus/Life with diabetes mellitus

5.9.4.1 Fear of complications, social isolation, financial, problems with normal physiological processes and non availability of glucometers

The accounts of the members in this group on their living experiences were centred on fear which was associated with the complications of diabetes mellitus such as organ damage and ultimate death. They became fearful when a colleague with the condition is head dead, in which case they began to think of who would die next.

In addition, they had to isolate themselves during social gatherings at points in time in order to treat themselves such as going for injection. Other challenges experienced by this group members was on financial and general economic pandemonium, where in certain situations they were told to pay extra monies at the hospital pharmacy in order to secure their drugs despite the fact that they had registered with the national health insurance scheme.

Additionally, they suffered from interruptions associated with normal physiological processes such as frequent urination especially at night which resulted in sleeping disturbances. Other challenges reported by the group members centred on unavailability of clinical devices such as glucometers to check their blood glucose at home, pains associated with daily injections as well as daily oral medications associated with bitterness.

This next section centres on comparative appraisal of typical group of respondents based on age and educational level regarding impact of diabetes mellitus/life with diabetes mellitus.

The section ends with the discussion of findings pertaining to the typical groups on their views regarding the impact of diabetes on them.

5. 9.5 Comparative Assessment of Typical Groups of Respondents based on age and educational level regarding Impact of diabetes mellitus/Life with diabetes mellitus

The comparative analysis shows that respondents under 40 years with Secondary Education and Above Education as well as respondents over 40 years with tertiary education and over 40 years with Limited Formal Education pronounced fears of complications connected with type 2 diabetes. However, under 40 years with Secondary Education and Above Education and over 40 years with Limited Formal Education expressed concern about the injection pain, and fatigue associated with daily oral medications. Only under 40 with secondary education and above education and under 40 year with limited formal education noted restrictions imposed by diabetes including special food demands and stress and not getting prescribed foods by their doctors.

Under 40 years with Limited Formal Education mentioned sexual dysfunction as a challenge, disruptions associated with social distinctiveness in terms of stigma linked with body image as a result of perceived HIV/AIDS because they have reduced in body weight. Stigma as well as social isolation was also reported by respondents over 40 years with Tertiary Education due to the fact that individuals with diabetes who have reduced in body weight are accused of having HIV/AIDS. Participants over 40 years with Tertiary Education as well as respondents under 40 years with Limited Formal Education and those over 40 years with limited formal education expressed concerns about financial troubles relating to cash and carry system of acquiring medications and other services at the hospital as they live on meagre salaries, as well as the fact that they have no employments for ends meet. In the researcher's interaction with diabetics as a professional nurse, patients without good educational background as well as those with poor financial standing usually complain of difficulties in securing their medications at the hospital. As a nurse, I have observed that at times such patients are supported by nurses by looking for financial support for them at the hospital before they are

able to get their drugs. The researcher has experienced instances where at times he had to lead them to the hospital administration to guarantee for them to get their medications and pay for it in instalments.

Participants over 40 years with Tertiary Education and those over 40 years with limited formal education observed much urination, and drinking of too much water. They also mentioned the need to have glucometers to check their blood glucose at home. However it was only participants over 40 years with Limited Formal Education who reported that the death of a colleague put fears in them as to when they would also die.

5. 10 Theme 10 - Discussion of findings pertaining to the typical groups on their views regarding the impact of diabetes on them

In the current thesis respondents under 40 years with Secondary Education and Above Education as well as respondents over 40 years with tertiary education and over 40 years with Limited Formal Education pronounced fears of complications connected with type 2 diabetes. This finding of the current thesis support findings from Mathew et al., (2012), in qualitative exploration, who found that men in the study expressed concerns about eminent death, humiliation and mortification or embarrassment after diagnosis of type 2 diabetes mellitus. They had thoughts that as a result of diabetes complications they were not far from death. In their study a man said “so when I was diagnosed with type 2 diabetes mellitus, I thought that I was going to die”. “I thought I was different from others”. “I could not face people and I said Oh this is terrible sickness”. “Oh my God, I am going to die”. These are not different from the thoughts of the participants of the current thesis, those under 40 years with Secondary Education and Above Education as well as respondents over 40 years with tertiary education and over 40 years with Limited Formal Education. This is because they all expressed fears about the dangers associated with type 2 diabetes as it can cause serious

complications and ultimate death of the affected person. However, the women in Mathew et al., (2012) study did not mention fears of death associated with type 2 diabetes mellitus but rather focused on feelings of unhappiness and frustration and regret when they were diagnosed initially. The current study findings show age as well as educational differentiation of participants which make it different from other studies as these perceptions and experiences are common among participants under 40 years with Secondary Education and Above Education as well as respondents over 40 years with tertiary education and over 40 years with Limited Formal Education. Mathew et al., (2012) did not show any age or educational differentiation to single out participants who had particular experiences. The women in Mathew et al., (2012) study did not hide their diabetes from other people as compared with the male participants who tried to conceal their diabetes identity to friends and family and the general public. The women wanted the public as well as family members to know their problems so that in case of crisis situation the needed attention must be received. In this sense the women went out always with diabetes identity card so that in crisis situation help may be sought from other people who may be around. The women carried their diabetes identity card when they were travelling. The men in their study even refused to attend friends' parties for fear of being labelled as diabetics because they would avoid some foods which they were not supposed to eat. They rather preferred to go out and engage in physical activities to improve their health. In as much as in their study, they were able to differentiate women and men about their behaviours in terms of fears associated with diagnosis of diabetes, they did not show age differentiation and educational level of participants as to how these variables affects people's behaviour in terms of their experiences living with type 2 diabetes. This makes a difference between the findings of current study and the findings from Mathew et al., (2012). Charmaz (1994) has explained why men try to conceal their disease diagnosis and identity in certain situations. According to Charmaz (1994) men in many

instances try to “maintain their male autonomy in society, independence and ownership of decision making” (Charmaz, 1994).

In addition, Liburd, Namageyo-Funa and Jack (2007) explored the effects of how male participants with diabetes perceived their male status on how they managed their diabetes in African Americans. It was identified that men considered necessary to “conform to the traditional masculinity characteristics of autonomy, dominance, and stoicism” (Liburd, Namageyo-Funa and Jack 2007). These perceptions among male patients with diabetes may serve as hindrance and impediments for self-care management, blood glucose control as well as general adherence as well as observance to treatment of diabetes by male patients. On the other hand, the conventional masculine features or characteristics are not likely to be revealed by women and that they may not perceive diabetes as a condition which may change or alter their identity (Penkofer et al., 2007).

Similar to the current thesis findings and Mathew et al., (2012), Penkofer et al., (2007) also found that participants in their study communicated concerns about “worrying about the present and future”. The worries of their participants were focused on cost associated with healthcare, poor health insurance systems and fear associated with possibility of development of complications with diabetes in the affected persons. Complications which were mentioned by the participants in Penkofer et al., (2007) study centred on renal complications which would require dialysis. Other complications their participants emphasized centred on blindness as well as possibility of depending on other people because of incapacitation. The current thesis builds on what Penkofer et al., (2007) identified, as the participants in the current thesis thought about complications associated with diabetes but they did not mention the specific complications which the affected persons can develop. Though a nurse and social worker and those with background in university education were among the respondents of the current thesis who mentioned fear of complication, they did not mention specific

complications which may be developed as a result of diabetes mellitus. In both studies, Mathew et al., (2012) and Penkofer et al., (2007), educational backgrounds of the respondents were not classified which probably might have determined some differences in their experiences living with type 2 diabetes mellitus. However, in Penkofer et al., (2007), age of participants was shown as 40 years and above and newly diagnosed over 6 months period with type 2 diabetes mellitus, but in the current study participants were patients newly diagnosed with type 2 diabetes within three months. Unlike in the current thesis whereby age differentiations as well as educational backgrounds were identified which probably determined the reason why those over 40 years with Limited Formal Education were not able to disclose specific complications connected with type 2 diabetes. However, the same picture was portrayed by those participants under 40 years of age with secondary school education as well as those over 40 years with tertiary education background similarly, did not mention specific complications associated with type 2 diabetes mellitus in the current thesis.

The current thesis also indicated that participants under 40 years with Limited Formal Education noted sexual dysfunction as a problem, stigma linked with body image as a result of perceived HIV/AIDS secondary to perceived reduction in body weight. Stigma and social isolation were also reported by participants over 40 years with Tertiary Education due to the fact that individuals with diabetes who have reduced in body weight had developed HIV/AIDS. This finding has already been identified by De Graft Aikins (2006, 2007) in which she explained that people living with diabetes in Ghana “face the risk of HIV/AIDS related stigma”. According to De Graft Aikins (2006, 2007) patients with diabetes who receive poor medical management as well as poor dietary management and experience “uncontrolled diabetes” are the patients who stand a higher chance to experience speedy and severe weight failure. The finding in the current thesis is similar with what De Graft Aikins (2006, 2007) found, because participants in the current thesis also experienced stigma living

with type 2 diabetes mellitus only when their body weights were perceived to have been reduced which were associated with HIV/AIDS. In this case, it appears that diabetes per say in Ghana is not stigmatized, unless it is associated with drastic weight loss. However, in De Graft Aikins (2006, 2007) studies, ages as well as educational backgrounds of the research participants were not shown as compared with the current thesis whereby age and educational status were indicated for participants, which possibly influenced their behaviour in terms of experiences of living with the condition. In the current thesis, both educated and those with limited educational backgrounds were stigmatized because they had reduced in weight and so they were associated with having HIV/AIDS. In the researcher's view, age as well as educational background did not matter over here so much because it was individualistic stigmatization based on body weight reduction issues in Ghanaian context to mean HIV/AIDS.

This phenomenon of social identification of body size and image has also been identified by Puoane, Bradley and Hughes (2005) who noted that belief about thinness of body weight is linked with personal troubles and problems such as diseases like HIV/AIDS which adversely affects normal body weight of people. In Ghanaian society, some individuals feel pleased if they are informed that they have gained weight which explains the state of wellness and wealth of the individual. At times, individuals do not identify by themselves that they have gained weight except they are told by another person. In my experience as a nurse, I have also observed that body weight check is not regular among Ghanaians, except when they are sick and report at the hospital when this is done as one of the routine checks. The reasons for HIV/AIDS "related stigma" in De Graft Aikins (2007) as well as in the current study and in Puoane, Bradley and Hughes (2005) for diabetics are all the same in African context, however, De Graft Aikins (2007) did not link weight reduction with any other cause but Puoane, Bradley and Hughes (2005) noted that personal problems or troubles apart from

HIV/AIDS can result in body thinness. The difference is what the current thesis is showing in that the perception of Diabetics having HIV/AIDS due to excessive weight reduction is well pronounced in participants under 40 years with limited formal education, and this is possibly due to the nature of the population being studied.

In addition to the findings of the current thesis, it was found that participants over 40 years with Tertiary Education as well as respondents under 40 years with Limited Formal Education and those over 40 years with limited formal education expressed concerns about financial troubles relating to cash and carry system of acquiring medications, troubles with the health insurance system and other services at the hospital as they live on meagre salaries, increasing cost of living, as well as the fact that they have no employments for ends meet. In my interaction with patients, I have noted that participants with limited formal education who attend hospitals in Ghana at times find it difficult to pay hospital bills as compared with their counterparts who have good educational backgrounds. The reason may be that, such individuals with lower educational backgrounds may not have a decent job to do and therefore live from hand to mouth. The financial constrain faced by diabetics in the current research has already been identified by De Graft Aikins (2007) and Penkofer et al., (2007). According to De Graft Aikins (2007), treatment of diabetes causes economic problems to the affected individuals and this problem becomes compounded when the person has not registered with the national health insurance scheme. In addition, De Graft Aikins (2007) noted that the effect of financial problems living with diabetes has effect on the family system because close and extended family members will have to bear the cost of health of the affected family member. Similarly, the long term treatment of the patient with diabetes may be affected due to limitations imposed by the financial constraints (De Graft Aikins, 2007). Similarly, in Penkofer et al., (2007) participants expressed concern about cost of healthcare and health insurance for not able to meet their health needs as diabetics. A number of

participants who were women in their study noted that the insurance system was not up to the task of meeting their financial needs and not adequate to cover the total cost of their healthcare bills. The participants in the current study, as well as those in Penkofer et al., (2007) and in De Graft Aikins (2007) have expressed concern about poor healthcare systems in terms of financial management whereby insurance systems do not work properly as well as rising cost of healthcare in general. However, participants in the current thesis noted that cash and carry or cash for health system of care does not help them in assessing efficient healthcare, because without money one would not get the healthcare one deserves. This was in their reaction to the current system of healthcare financing in Ghana in which the national health insurance scheme has failed to offer better health to Ghanaians as opposed to the previous cash and carry system. However, it is only the participants in the current thesis who pointed out that their salaries were meagre as well as limited employment opportunities for them to be able to get enough money to foot their healthcare bills. This may be due to their lower educational background in case of participants with limited formal education as well as those with tertiary educational background in whom probably the graduate unemployment issues may be cases to worry about. In Ghana, out of pocket system of payment for health care services was replaced by the National Health Insurance Scheme (NHIS) to take care of health needs of patients but the NHIS is associated with serious crisis including corruption and bribery, delays in payments of claims to hospitals for smooth operation, non availability of registered drugs under the scheme at the hospitals and non coverage of some essential drugs under the system among many other factors which affect smooth running of the scheme (Odeyemi and Nixon, 2013).

The under 40s with secondary education and above education and under 40 year with limited formal education noted restrictions imposed by diabetes including special food demands and stress and not getting prescribed foods by their doctors. This supports the findings of Mathew

et al., (2012) that food restrictions are associated with living with diabetes, but the age and educational differentiation were not shown by (Mathew et al., 2012). Experiences of food restrictions in diabetics were pronounced in this class of patients in the current thesis, under 40 with secondary education and above education and under 40 years with limited formal education. Both men and women in their study noted that they had to take food with them to anywhere they had to go causing embarrassment and difficulties to them. They also had to eat foods labelled as “forbidden foods for diabetics” as a woman participant said it was “difficult for her to break away from what she was used to eat” (Mathew et al., 2012). Participants in (Mathew et al., 2012) expressed difficulties adjusting to the “right” or “appropriate” foods for diabetics. Women in their study mentioned that they were forgoing certain foods as compared to the men who were observed not complaining about missing certain food but tried to eat in moderation of food they were asked to forbid (Mathew et al., 2012) but they complained of problems holding fast to food restrictions especially during social gatherings. This suggests that men would probably benefit from nutrition counselling for behavioural changes to occur. Findings from Mathew et al., (2012) and the current thesis have all focused on food restrictions for diabetics but the participants in the current study complained of diet planning, adjustment, affordability, availability of recommended foods and nutritional quality. Dietary therapy is an important part in the management of diabetes. This centres on food selection in relation to daily or routine sugar checks to see if there is correlation between type of food taken and the blood glucose monitoring results. This serves as a guide as to whether there is a need to make adjustment into the type of food taken by the patient. In addition it will also be prudent to compare blood glucose result with the time when a particular food is taken. Food control and selection is one way of checking or controlling weight in diabetics. Diabetics themselves have to decide what they need to do for themselves such as the selection of food and choice of lifestyle in general. In diabetes care, it has been noted that individualized

centred care and protocols may be appropriate for specific patient management; therefore healthcare professionals need to take into consideration, patient specific needs in planning of diabetic care.

Participants over 40 years with Tertiary Education and those over 40 years with limited formal education observed much urination, and drinking of too much water which they took for granted thinking that they had not developed diabetes mellitus. Participants in the current thesis also identified pains and general bodily weakness and frequent collapse. Evidence from the analysis also indicated that patients were confronted with sleeplessness due to constant bodily pains and vomiting among other problems. They also mentioned the need to have glucometers to check their blood glucose at home. The findings under the interruptions to the physical signs and symptoms in the current study are similar to what Mohd Ali (2009) found in which most patients interviewed in his thesis could not identify that they had developed diabetes prior to their clinical manifestations of their diabetes including frequent urination, vision difficulties, as well as excessive thirst. It appears that participants in both studies took for granted the clinical manifestations of diabetes as they thought that it was normal for them to experience such clinical manifestations such as frequent urination and drinking of too much water. Similar clinical manifestations were also reported by Penkofer et al., (2007) in which participants complained of “struggling with the changing health situation” in terms of severe dizziness as a result of perceived high blood glucose levels, and also development of peripheral neuropathies. Though in the two studies, Penkofer et al., (2007) and Mohd Ali (2009) in addition to the current thesis, they were all talking about interruptions associated with normal physiology but individual differences were apparent because in the current thesis participants reported urination, and drinking of too much water, which were similar to what Mohd Ali (2009) reported but Mohd Ali (2009) only pointed out vision problems. However it is only Penkofer et al., (2007) who reported of dizziness among participants. None of the

studies including Penkofer et al., (2007) and Mohd Ali (2009) mentioned lack of glucometers hampered glucose check in the affected individuals with diabetes but it was only the participants in the current thesis who acknowledged the need to have glucometers for blood glucose check. Zgibor and Simmons (2002) identified factors such as inadequate personal finances, and barriers associated with physical access to healthcare and lack of glucometers for diabetics affected the number of times at which diabetics did monitoring of their blood glucose levels. What is striking is that age as well as educational classification was not made out by the other researchers such as Mohd Ali (2009) and Penkofer et al., (2007). However, in the current thesis age as well as educational criteria made it easy to recognize participants in whom these behaviours were paramount. In diabetes care and management, adequate equipment like glucometers as well as test strips and support services such as financial support are very crucial to prevent complications. For diabetic patients to live meaningful and purposeful lives, elimination of barriers of care will go a long way to help these patients.

However, under 40 years with Secondary Education and Above Education and over 40 years with Limited Formal Education expressed concern about the injection pain, and fatigue associated with daily oral medications. In my clinical interactions with patients in the hospital, the researcher has observed that most of the causes of non-adherence among diabetics in my former hospital were due to daily injections, fatigue associated with daily oral medication as well as travelling of long distances to the hospital especially patients from the hinterland that are due for review at the clinic. Some of them had to walk long distances under scorching sun or even at times during rains to attend clinic. Others also took opportunity to visit the clinic on market days with the aim to take the opportunity to sell and buy some food stuffs for family use and also to get money to visit the hospital for review. At times after the market activities, they come to the hospital to meet the diabetics' clinic closed, in which case they have to report at the general ward for nurses to look for doctors for their consultation.

Some of the ways to prevent complications in diabetes are early diagnosis and treatment as well as adherence to follow up visits by patients (Danquah et al., 2012). In Ghana, some of the major challenges associated with the management of diabetes in general are late reporting for diagnosis, non adherence for follow up visits to diabetic clinic, and financial constraints facing patients (Danquah et al., 2012).

Having discussed the impact or the challenges of diabetes with the typical groups, there is the need to look at how they cope with the condition. The next section looks at the coping methods with regards to the typical groups identified in this study.

5. 11 Theme 11 - Coping experiences with type 2 diabetes mellitus

The sections below look at case reports of respondents under the four groups starting with the participants under 40 years of age with secondary school education and above education.

However as we have already stated, there are some overlaps between the coping experiences of the 4 groups of respondents. This is because, there are instances where particular coping methods are employed by more than one specific group, in which case it may run through several typical groups. For instance, religious coping runs through all the 4 groupings which we have identified for the discussion.

5. 11.1 A case report on perceptions of Under 40 years with Secondary Education and Above Education on Coping experiences with diabetes mellitus (positive/negative/alternative coping methods)

5.11.1.1 The use religion, medical staff and social isolation in coping with type 2 diabetes

Their account on coping with diabetes centred on the positive, negative as well as alternative coping methods to deal with the challenge they faced. Specifically, they employed religious coping such as the use of prayers, fasting for spiritual strength to deal with their diabetes. They also used medical coping to deal with their condition as they relied on medical staff for medical treatment and health education as well as professional advice. Their coping narrative also showed that information seeking in the form of internet, hospital source, radio and television, reading books, market displays as well as popular broadcasting served as a means of getting information about diabetes.

On negative coping methods, the members of the group employed social isolation to deal with the condition as they did not want other people to hear that they have diabetes for fear of stigmatization due reduced weight which is equated with one having HIV/AIDS.

On alternative coping methods, the individuals in this group employed other methods to deal with specific challenges such as how to deal with stigmatization as a result of being accused of having HIV/AIDS. They ignored such accusations and tried to move on with diabetes treatment at the hospital. Similarly, others tried as much as possible to socially interact with other people to partake in all social activities so that social isolation is avoided.

The next section is the coping experiences of respondents under 40 years with limited formal education.

5.11.2 A case report on perceptions of Under 40 years with Limited Formal Education on Coping experiences with diabetes mellitus (positive/negative/alternative coping methods)

This group members employed positive, negative and alternative coping methods as mentioned below starting with religious coping under positive coping strategies.

5.11.2.1 Use of religion, financial and social support in coping

When considering religious coping the respondents relied on prayers to God to cure their condition and to give them strength and health. In terms of financial coping and support, they relied on friends, church members, their bosses or their superiors at work place, the use of salary advance. Similarly, the respondents in this category relied on social support, thus receiving support from father, sister or brother and also from organized groups such as churches. These supports were in the form of gift such as food items, clothing and other tangible items.

5.11.2.2 Use of confrontation strategy in coping, and suicidal intents in coping

On negative coping methods, the respondents in this cell, the under 40 years with limited formal education, employed a confrontation strategy with family members and significant others who were alleged to have brought about their diabetes in a mystical or spiritual way. Those individuals accused of causing diabetes were shunned and ignored in social circles as well as insulted in public and failed to speak in terms with them in several instances. They were not in agreement on several platforms when the accused person is in the same family with the affected person. In this way, they felt contended dealing with such people in that manner but as to how this helped them to manage their diabetes is another question which needs to be addressed. In the same vein, the use of suicidal intents was used as a negative coping strategy by these individuals because they were blamed by their families and the

public in general as causing their own diabetes. For instance, they eat and no weight gain is manifested among these individuals.

The first part ends with the use of alternative coping style which seeks to employ several factors to deal with multiple and specific challenges faced by the respondents.

5.11.2.3 The use of peers, church pastors, family members, carers and members of diabetic association in coping

The use of alternative coping was deemed appropriate to deal with stigmatization by these respondents as they received support and words of assurances from peers, church pastors, family members, carers and members of the diabetic association.

The next section also considers views of respondents over 40 years with tertiary education on their coping experiences with type 2 diabetes mellitus.

5.11.3 A case report on perceptions of over 40 years with Tertiary Education on Coping experiences with diabetes mellitus (positive/negative/alternative coping methods)

Their coping experiences were also based on positive and alternative coping, commencing with religious coping methods and ending with the alternative coping method.

5.11.3.1 Use of religious coping, medical coping, information seeking, and use of physical activity in coping

Their coping experiences appear to be based upon positive coping strategies as well as alternative coping styles. On positive coping, the members in this group used religious coping, in the form of prayers to God for power and strength.

They also used medical coping which was instrumental among this group as they relied on health workers for treatment, health education, and counselling and health information.

Members in this group also used an information seeking strategy to manage their diabetes as they used to read from internet, books, pamphlets, listened to radio as well as television. In addition they received social support from their family, their professional groups such as nurses, police and teachers association.

Similarly, as members of diabetics association, they benefited from the members and people who donated to members through the diabetics association. In the same vein, they relied on nurses and doctors as friends whom they contact especially on occasions outside the official working hours.

5.11.3.2 Alternative coping strategies – doing physical activity, dietary planning

On the alternative coping methods, the members in this group rely on physical activity such as jogging, walking at least some few hours a day and eating the right food and planning specifically to suit their individual uniqueness as a nurse, teacher, police or a fire officer in order to get time for clinical review at the hospital.

The following section also examines the participants over 40 years with limited formal education on their coping methods dealing with type 2 diabetes mellitus.

5.11.4 A case report on perceptions of over 40 years with Limited Formal Education on Coping experiences with diabetes mellitus (positive/negative/alternative coping methods)

The coping experiences with this group members starts with their use of religious coping as a positive coping strategy and ending with the use of confrontation as a negative coping method.

5.11.4.1 Use of religious or spiritual coping, medical staff, information seeking, emotional supports, health professional as allies or friends, acquisition and use of glucometers for coping

Their coping approaches predominantly hinged upon positive coping strategies notably religious or spiritual coping styles in which respondents specifically noted that prayers, fasting as well as medication deemed important in the management of their condition.

Respondents over 40 years of age and with limited formal education also mentioned that they relied on medical staff for management of their diabetes. As part of meeting the needs of patients at this Ghanaian hospital, respondents in this group acknowledged that their financial needs were met by the hospital in situations when it was difficult for the respondents to settle their hospital bills. In such instances, there were asked to sign an undertaking in the hospital to pay their hospital bills in the future either in instalments or in full.

When considering information seeking as a coping strategy, the group members relied on radio and television discussions for information on diabetes as well as reading of simple literature about the condition. They also relied on popular public information, popularly known as “hear say information”, which are propagated by individuals based on what they hear others say about the condition such as causes and treatment among other issues regarding the condition. The members also benefited from social support such as from children, wives and husbands, church members. The respondents in this category also shared

experiences in life with other members in the diabetics association and also benefited from inviting resource persons to come and offer them important information about diabetes. Further, members in this group used nurses and other health professional as allies or friends and benefited from them outside hospital hours, for example through telephone discussion without a cost. As a positive measure the respondents in this category empowered themselves through acquisition of glucometers in order to check their own blood glucose at home.

5.11.4.2 Use of confrontation strategy in coping with type 2 diabetes

When considering negative coping, the members used confrontation with family members to deal with the individuals suspected to have caused the condition spiritually instead of dealing with the condition, for instance looking for current information and medication about the diabetes.

On the alternative coping strategy, these respondents pointed out that physical activity is good for the body as well as good diet which are capable of reducing the blood sugar levels.

The next section considers the comparative analysis of the typical groups based on their ages and educational status on coping experiences with type 2 diabetes mellitus. The age and educational level categorization of the respondents will help us to do discussion, to compare and contrast and to settle on whether the current finding is new or not.

5.11.5 Comparative analysis of typical groups based on age and educational attainment on coping experiences with type 2 diabetes

There are differences and similarities in group behaviours on coping experiences with type 2 diabetes mellitus (positive/negative/alternative coping methods). A common behaviour which was demonstrated by all the 4 groups in this sense was the use of religious coping in which

respondents under 40 years with secondary education and above education, under 40 years with limited formal education, as well as respondents over 40 years with tertiary education and participants over 40 years with limited formal education relied on prayers as well as fasting for spiritual strength in order to communicate with God to help deal with diabetes. It was also noted that participants under 40 years with secondary education and above education, participants over 40 years with tertiary education and those over 40 years with limited formal education also employed medical coping whereby they saw the need to use health professionals at the hospital to deal with their diabetes.

It was also noted that participants under 40 years with secondary education, over 40 years with tertiary education as well as those over 40 years with limited formal education looked for information about type 2 diabetes in order to deal with the condition. Information were in the form of internet information, hospital source, radio and television, reading books, market displays as well as popular broadcasting on the streets in town.

Furthermore only those over 40 years with Limited Formal Education as well as participants under 40 years with limited formal education employed the use of financial coping to deal with their diabetes. These were in the form of cash support from friends, family members, and hospital allowing them to pay in instalments. In a similar way, social support were obtained for participants under 40 years with Limited Formal Education, those over 40 years with tertiary education as well as those over 40 years with limited formal education. They received social support from parents, children, friends, church members, their bosses or their superiors at work.

However only those participants over 40 years with Tertiary Education used medical staff as allies and diabetics association in coping where medical staffs were used as friends or allies in coping with diabetes when the hospital staffs are contacted for help in times of crisis. They also appear to rely on members of the diabetic association for support in different forms such

as subsidy. On positive coping, it is those with over 40 years with limited education who employed emotional coping in which they received emotional support from children, wives and husbands, church members as well as empowered themselves through acquisition of glucometers in order to check their own blood glucose at home.

The participants under 40 years of age with limited formal education as well as over 40 years with limited formal education employed confrontation with family members as a strategy to deal with members of the family as well as other people who were alleged to have caused the condition. This action involved insults as well as failure to speak in terms with that person. These behaviours may be associated with limited formal education and so may not see the need to confront the condition instead of human beings. Only those under 40 years with limited education however employed suicidal intents. Participants under 40 years of age with Secondary Education and Above Education employed social isolation to make sure that people did not hear that diabetes had been diagnosed to avoid stigmatization. Participants under 40 years with limited formal education received support and assurances from peers, church pastors, family members, carers and members of the diabetic association. The words of assurance from these individuals and groups focused on assurances and counselling, and also how to deal with HIV/AIDS. In my observation as a clinical nurse, the researcher has also noted that usually people with poor financial and educational background in Ghana are supported by other people when they fall sick. This is because such individuals are vulnerable and are given such support in order to meet demands or challenges such as those imposed by diabetes and similar chronic conditions. Again, this is based on Ghanaian generosity as we have noted in the background chapter due to strong social bonds between Ghanaian people as each person is another person's keeper. Both respondents under 40 years with limited formal education as well as participants over 40 years with limited formal education used physical

exercises such as jogging, walking to manage their diabetes as well as the use of meal plan to manage the preferred diet in diabetes.

The following section centres on actual discussions using the coping methods used by the typical groups as identified above based on age and educational categorization to compare and contrast their respective coping methods with what the literature has already identified, starting with religious coping strategy and ending with how “typical group” members dealt with challenges associated with schooling and teaching living with diabetes.

5. 12 Theme 12 - Discussions of Findings Using Coping Methods of the Typical Groups Identified from the data

a) Spiritual/Religious coping – use of prayers and fasting

As we have noted above all the 4 groups of respondents used spiritual/religious coping, in which participants under 40 years with secondary education and above education, under 40 years with limited formal education, as well as respondents over 40 years with tertiary education and participants over 40 years with limited formal education used prayers as well as fasting for spiritual strength and power in God to help deal with their diabetes. Referring to the literature chapter, there were several instances that religious or spiritual coping were employed by diabetics and similar patients in managing their conditions. For instance, the findings of the current thesis supports the findings by Watkins et al., (2013) that religious practices as well as beliefs and rituals including prayers, meditation and incantation, as well as spells and invocations to mention a few are essential in religious coping whereby one’s relationship and affiliation with the divine being or the superior power, like the almighty God is crucial in facilitating recovery from disease situation (Watkins et al., 2013), however Watkins et al., (2013) did not take into accounts the age as well as educational level of participants in their study, whether that had impact of the findings or not. What the current

thesis brings on board is that religious coping is more pronounced in all the four age groups we have identified and categorized in this thesis. Again, irrespective of the educational background of the respondents in the current thesis, religious coping was pronounced in their coping methods. However, as discussed in the literature according to Yanez et al., (2009), religious faith may be a facilitative factor or barrier to adaptation or adjustment by patients or people in unpleasant situations (Yanez et al., 2009), but this was not supported in this thesis, which may be due to the nature of the population employed for the current thesis. Participants in Yanez and colleague's work in 2009 were cancer patients, while in the current thesis we are dealing with type 2 diabetics which may account for these differences. However, we must note that cultural differences may also play a major role in the differences in their religious orientation of people in coping.

In the literature review, one of the questions which has been asked and yet no answer has been received throughout this research is the question of how religious coping will help to achieve glycaemic control in diabetics or manage other diseases. For example how will religious practices such as prayers and meditation as well as spiritual fasting such as those we have identified in this thesis help patients in coping with their disease, type 2 diabetes mellitus. Answers to these and similar questions regarding religious coping by patients are yet to be identified. Another question which needs to be addressed is, what are the specific problems associated with living with a chronic condition that religious coping can manage. These are some of the gaps, regarding coping which need to be addressed and researched into in the future.

The findings of the four groups of respondents in the current study, those under 40 years with secondary and above education, under 40 with limited formal education, over 40 years with tertiary education and over 40 years with limited formal education, identified

prayers as well as fasting for spiritual strength and power in God to help deal with their diabetes. These practices are similar to what Watkins et al., (2013) found which included prayers, meditation and incantation, as well as spells and invocations. However, Watkins et al., (2013) did not found fasting as a religious coping method among the type 2 diabetics who were studied as compared with the group members of the current thesis who noted fasting as a religious practice which was used in coping. Though some of the findings of Watkins et al., (2013) and the current thesis are similar, the current thesis considered the age and educational level of participants in whom religious coping were paramount. The clinical and spiritual significance of fasting in religious coping may be important to explore in the future studies as it is not clear how it works to help in managing patients with chronic conditions such as diabetic.

As the researcher has noted, the religious coping among the four groups, thus participants under 40 years with secondary education and above education, under 40 years with limited formal education, as well as respondents over 40 years with tertiary education and participants over 40 years with limited formal education, was not determined by age or educational background. In other words, the age of the participants as well as their educational status did not have any significance in terms of the use of religious coping. As the researcher has explained already in the background and literature chapters, Ghanaian people are very religious and this is evidenced in all spheres of life of Ghanaian people and that may explain why all of them employed religious coping in the form of prayers, fasting for God's power and spiritual strength to deal with their diabetes.

b) Medical Coping – relying on health professionals at the hospital and at home

The findings in the current thesis also indicated that participants under 40 years with secondary education and above education, participants over 40 years with tertiary education

as well as those over 40 years with limited formal education employed medical coping whereby they saw the need to rely on health professionals at the hospital to deal with their diabetes. The supports they received were in the form of health education, counselling, prescriptions for medical supplies and laboratory investigations. As patients draw on medical staff to cope with their chronic conditions it gives them hope and encouragement to manage the condition. The development of a meaningful and strong staff-patient relationships and interactions may lead to improved health outcomes. When these happen, patients will be happy, appreciative and satisfied as they will be able to cope with their disease conditions as they strive to meet their goals of care (Pawar, 2005). These findings of the current thesis are also in tandem with the findings of Kadirvelu, Sadasivan, and Shu Hui Ng (2012) as discussed in the literature section that the kind of support from healthcare providers is key for meaningful diabetes management because patients including diabetics receive specialized care from different category of workers including doctors, nurses, pharmacist and dieticians. However, Kadirvelu, Sadasivan, and Shu Hui Ng (2012) did not use age or educational differentiation to identify their patients who relied on medical personnel for coping. They discussed that in general as part of a social support that patients receive from healthcare personnel but categorized such support from health personnel as “emotional, affirmational, informational and tangible attributes” Kadirvelu, Sadasivan, and Shu Hui Ng (2012), which the current thesis did do so, as Kadirvelu, Sadasivan, and Shu Hui Ng (2012) did systematic review of existing literature using identifying different respondents from different backgrounds.

It was also noted that the thesis participants under 40 years with secondary education and above education, participants over 40 years with tertiary education as well as those over 40 years with limited formal education in the current research interacted with their nurses and doctors by booking appointments with them through phone calls and subsequently visiting

nurses and doctors in their own homes to receive treatment. The medical staff in this way became friends or allies of the patients. The patients adopted this method in order to gain constant attention in times of need. In my experience as a nurse with patients in Ghana, the researcher has observed that it is common for patients to become so close with health personnel because of strong social ties that exist between individuals irrespective of their backgrounds. Once therapeutic interactions between patients and medical staff have developed it is common for relationships to continue to the benefit of the patient, who does not have to pay for the professional services of the health staff. The concept of drawing on medical staff as friends or allies as a coping strategy was instrumental in respondents understanding of causes of diabetes, signs and symptoms, treatment and prevention of complications. The nurses and the doctors were able to provide information and reinforcement around nutrition in diabetes. In the current thesis, both educated participants as well as those with limited formal educational backgrounds under 40 years and over 40 years of age used medical coping which appears to show that age and educational background did not show any association in their choice of medical coping methods.

c) Information Seeking in Coping - internet information, hospital source, radio and television, reading books, market displays and popular broadcasting on streets in towns

It was also noted that participants under 40 years with secondary education, over 40 years with tertiary education as well as those over 40 years with limited formal education looked for information about type 2 diabetes in order to deal with the condition. Information were in the form of internet information, hospital source, radio and television, reading books, market displays as well as popular broadcasting on the streets in town. These findings of the current thesis are in agreement with findings already identified in the literature review. For instance in Beverly, Wray and Miller (2008), using 30 couples with type 2 diabetes, aged 50 years or

more, found that the use of information as well as the need to educate diabetics on new modalities of dietary treatment, medication, including exercise is paramount in diabetes management. Though age and educational differentiation of participants were not considered in the work of Beverly, Wray and Miller (2008), however age of participants in their study was clearly noted but they used couples for their study as compared with the current thesis, which did not study couples with type 2 diabetes. Similarly, in a systematic review study by Scarton et al., (2014) as discussed in the literature review to explore the needs and concerns of relatives taking care of individuals with type 2 diabetes mellitus, it was found that, family members caring for American Indians with type 2 diabetes communicated concerns for information as well as resources for the management of the condition (Scarton et al., 2014). In the same vein, ages as well as educational differentiation were not made to see which group of patients usually rely on medical staff for coping. However, we still need to note that apart from the age and educational levels influencing people's choice in coping methods, cultural influence to a large extent may influence peoples' attitude more than age and education, because the age and education are embedded in the culture and people find themselves contained by the culture. Similarly, Hattori-Hara and Gonzalez Celis (2013) found that participants used active coping strategy in search for information as regards to the treatment of type 2 diabetes as well as the need to hold fast to the doctors' education and instructions, and importance of making their feelings known to care providers.

As much as the findings in the studies reviewed noted the importance of information needs of diabetics, they did not mention specific sources of information for diabetics, which the current thesis found including the use of internet information, hospital source, radio and television, reading books, market displays as well as popular broadcasting on the streets in towns and face to face interactions with people who were perceived to know much about the condition and its management. Their reasons cited for using such sources of information

centred on the need to get much information about the condition, complications associated with it, clinical manifestations of the condition, prevention of complications and treatments available. However, according to Gucciardi, Smith and De Melo (2006) on how adults used diabetes resources during self-management education programme observed that men used books as well as internet to get adequate educational information than to use generally information sources including “counselling classes and support groups which are used by women” (Gucciardi, Smith and De Melo, 2006).

In the current thesis, majority of the group members fall within class of participants under 40 years with secondary education, over 40 years with tertiary education as compared with those 40 years with limited formal education who looked for information about type 2 diabetes in order to deal with the condition. The impression is that probably the educational level of majority of members in the group influenced their decision to use sources of information such as book, internet, and hospital pamphlets, radio and television discussions. On the other hand the members in the minority group within the group which used information for coping, thus the participants over 40 years with limited formal education probably used sources of information such as popular broadcasting on the streets in towns and face to face interactions with people who were perceived to know much about the condition and its management.

These findings suggest that health information should be tailored to fit with patient’s personal needs. As much as information is crucial to the care of diabetes patients, the type of information reaching them has a long way to impact on their total health outcomes. Providing information for newly diagnosed clients in Ghana is a norm but the problem is whereby one nurse or a doctor or a similar healthcare professional handles thousands of patients. More seriously, in deprived communities in Ghana the patient may be attended to by non healthcare professionals who may lack the knowledge about the condition but are able to convince patients to adhere to their treatments. It is therefore suggested that there should be close

working relationship between health professionals and non health professionals so that they can complement each others' effort in order to have positive impact on the patients.

d) Financial Coping - cash support from friends, family members, and hospital allowing them to pay hospital bills in instalments

The findings indicated that participants only over 40 years with limited formal education as well as participants under 40 years with limited formal education employed the use of financial coping to deal with their diabetes. The financial supports for these participants were in the form of cash support from friends, family members, and hospital allowing them to pay hospital bills in instalments. This type of financial coping approach has been reported earlier by other researchers such as De Graft Aikins (2005), De Graft Aikins (2007) and Kadirvelu, Sadasivan and Shu Hun (2012) but they did not use any age or educational background to find out those who really reported of financial difficulties dealing with their conditions. De Graft Aikins (2007) in a Ghanaian study with diabetics also noted that treatment of diabetes and other chronic conditions in Ghana create serious financial difficulties for affected individuals. This problem becomes compounded in situations when the individual is not covered with the health insurance in which case the person accesses health through cash and carry approach. According to De Graft Aikins (2007), the effect of financial crisis on individuals with diabetes has “knock-on impact” on the immediate and extended family members as well as effect on the treatment of the condition. In view of this, it was identified that both men and women participants in De Graft Aikins study in 2005 received financial support from family members. It was however noted that over dependence on family members for financial support in some cases created “family tensions and frictions” and subsequently resulted in “family abandonment and social isolation” (De Graft Aikins (2007)). This is because the family members who offer such financial assistance themselves may not

even be financially sound (De Graft Aikins (2007). Fisher et al., (2007) noted down that availability of financial resources may be likely to enhance diabetes management and according to Kadirvelu, Sadasivan and Shu Hun (2012), social factors including financial support from significant others is important in determining patients' responses or reactions to type 2 diabetes mellitus. This is due to the fact that with financial support, diabetics may be in a good position to improve their health as it likely for them to meet their financial needs in terms of diabetic care (Kadirvelu, Sadasivan and Shu Hun, 2012).

However it has been identified by Kadirvelu, Sadasivan and Shu Hun (2012) that in most cases, the social support, for instance financial aid that are given to patients in most cases are free of charge because they are given by friends and family members and other similar individuals and it is also usually given to the affected person during the severe phase of the condition and also in situations when the condition is critical (Kadirvelu, Sadasivan and Shu Hun, 2012). However, whatever form the social support takes, for instance in monetary forms, it is likely to reduce over time as the "giver fatigue" may set in (Kadirvelu, Sadasivan and Shu Hun, 2012), when they are no longer in a position to provide such support. Carter-Edwards et al., (2004) also noted that at times patients may be irritated or feel slated or culpable when they get help or support from other people including family ones. At the same time family support may be inadequately performed where family members are not directly responsible for patient's care which may cause poorer patient result (Beanlands et al., 2005; Frank et al., 2006). These obstacles associated with self-care management can distress younger as well as able clients or patients who in many situations manage to cope with vigorous or many family responsibilities (Samuel –Hodge et al., 2000). For example, a spouse and a parent or a child. Similar hindrance may be an instance whereby the patient is likely to be secluded in a social context or a situation in which the patient experiences

disagreement or conflict with the family which is likely to weaken diabetes care and general management.

What the current thesis is showing is that in participants over 40 years with limited formal education as well as participants under 40 years with limited formal education, their use of financial coping to deal with their diabetes may suggest that, probably their poor educational background might have affected their employability to get decent work to do and subsequently determine their possible positive economic status. This may indicate that people with poorer educational background may be likely to use financial coping methods to deal with their conditions as they are likely to request for financial support from other people. In my experience as a nurse, and a lecturer in the public sector in Ghana, the researcher has observed that healthcare financing is challenging for individuals affected with chronic conditions like diabetes mellitus, hence they are compelled to rely on other people for financial support. Due to strong social ties in Ghanaian society, individuals tend to get financial support from family members, church groups, friends, and other sources as mentioned above to take care of their health needs. Individuals who give this financial support to people who are affected with diseases see themselves as each other's helper and so in times of financial difficulties, support is provided in a reciprocal fashion. It is therefore important to note that identifying interventions to improve care of diabetic patients in Ghana needs to address financial issues associated with the cost of care.

e) Social Support - social support from families, parents, children, friends, church members, their bosses or their superiors at work places

Group analysis in the current research also indicated that social support were obtained for participants under 40 years with Limited Formal Education, those over 40 years with tertiary education as well as those over 40 years with limited formal education. They received social

support from families, parents, children, friends, church members, their bosses or their superiors at work places. These findings build on the findings from previous research studies on social support. For instance, in the literature review as we have discussed, social support were sourced from many sources including friends, families, peers (Kirk et al., 2013) in a systematic review studies. The findings of 12 reviewed studies pointed out that the responsibility of the family as well as friends have central role to play in the management of diabetics. The reason is that the family and friends are commonly enthusiastically and willingly accessible and may be economically sound to give the necessary social support to the patient (Kirk et al., 2013). However, age as well as educational backgrounds of their participants were not associated with their coping as to whether it had any influence on their choice of social support in coping. One of the reasons why support from peers is significant is the fact that it helps in the everyday care of the affected person in that the peers may render emotional support as well as social support of any kind (Fisher et al., 2010).

In the literature review, we also discussed report by Chlebowy, Hood and LaJoie (2010) that families as well as friends provided support to assist diabetics so that they could overcome social barriers in meeting their daily needs such as meal planning, glucose testing, insulin injection, examination of the feet and performing physical activities. The findings of the current thesis are in agreement with the findings of (Chlebowy, Hood and LaJoie, 2010) because both studies found friends and family members as main sources of support for their patients. However, the difference is that in the current thesis ages as well as educational differentiation of participants were identified to make out age group with particular educational status who use social support in coping in the context of Ghana. Other sources of social support system included church members, parents and children as well as head of the work places of the patient which Chlebowy, Hood and LaJoie (2010) did not find, which is

also unique for these patients. In the current thesis, as we have noted parents for instance obtained social support from their children or the opposite where children also received support from parents based on unique experience of the and the kind of patient in question either a child or an adult.

The current thesis did not find the effect and significance of social support on the level of glucose in blood in patients but this was identified by Kadirvelu, Sadasivan and Shu Hui (2012) who looked at the importance of social support from friends and family, the effects of sex and culture, the value of peer support, as well as the role literacy plays in self-care.

Findings showed that the role of social support in diabetes management has revealed encouraging and promising effect on glucose level in people with type 2 diabetics. In simple terms, there is meaningful or positive relationship between social support and glucose level of the affected person. The reason is that, the individuals closed to the patient for example the family and friends and other people make available, sizeable pieces of information which the patient needs during diagnosis of the condition, medication, complications and what the patients perceive about the condition and that patients getting the needed information about the treatment, diagnosis, and complications is possible to make sure that better blood sugar level is achieved (Winocour, 2002). In Ghana, the extended family system is practiced whereby distance family members matter in the care of other family members (Twumasi, 2005; Assimeng, 2010). The outcome of extended family system as a social support somewhere may be dissimilar from the effects of nuclear family system on diabetes self-care and management. With this in mind, it suggests that the level of support may be different from one culture to the other and this may affect the extent of self-management among people with chronic diseases including type 2 diabetes.

We have already noted in the current thesis that social support were used by participants under 40 years with Limited Formal Education, those over 40 years with tertiary education as

well as those over 40 years with limited formal education. The direction of the findings in the current thesis seem to show that irrespective of the participants age and educational background did not show any differences in their coping methods with respect to the use of social support. This is because, those under 40 years as well as over 40 years with limited formal education as well as participants over 40 years with tertiary educational background experienced similar behaviours.

Throughout my interaction with patients in my practice as a professional nurse, the researcher has observed that the patients with higher educational level seem to show some level of fulfilment in life and may not necessarily require social support as compared with the participants under 40 years with limited formal education and those over 40 years with limited formal education in whom because of their limitedness in education, would rather need social support in their diabetes care as these individuals may not have any meaningful employment to generate income to take care of themselves but likely to rely on other people. As noted in this thesis, there are strong family ties among Ghanaians, therefore the care of a family member who is sick is a collective responsibility of all family members, emphasised by the fact that Ghanaians recognise the extended family system, and as such cohesive bonds between family members are strong. It seems therefore that reliance is placed in Ghanaian society, in the absence of any other reliable form of support. It is therefore suggested that if family groups or members are made knowledgeable about how to perform personal care of patients it will go a long way to support patients in families. Nurses can be empowered to give this kind of training to groups of families so that in times of diseases and crisis situations, family based support system in terms of basic personal care can be given at home. More attention by community health nurses may be needed to influence the attitudes of members of such family support groups which may be formed. Social cohesiveness in the Ghanaian society is very strong therefore any social support intervention for patients in

Ghana which is likely to be successful will depend largely on identifying people from various social groups to undergo training to perform such roles.

Future research should examine the interaction of social support and diabetes management in this population and in others. The current thesis was done in a rural setting of Ghana where the social interaction between family members are extremely strong which was likely to determine highest level of social support for patients affected with diabetes, a chronic condition. Furthermore, in the future research, the potential influence of the urban setting should also be assessed on the level and type of social support in Ghana by also sampling an urban population.

f) Emotional Coping - emotional support from children, wives and husbands, church members (in the form of advice, words of encouragements, counselling and being present all the time, and providing their requests)

Participants in the current thesis over 40 years with limited formal education also employed emotional coping in which they received emotional support from children, wives and husbands, church members as well as empowered themselves through acquisition of glucometers in order to check their own blood glucose at home. Emotional support that diabetics in the current research received from children, wives and husbands as well other members of the general public are in line with findings of other research. These were in the form of advice, words of encouragements, counselling and being with them all the time and providing their needs.

These support the findings of Smalls et al. (2012) as discussed in the literature review, that there is a significant and considerable association between emotional approach to coping and adherence to medication, knowledge associated with diabetes as well as self-care behaviour

in adult patients with type 2 diabetes mellitus. Their study however indicated that degree to which one is able to discover an understanding of stressors was correlated to medication adherence, knowledge on diabetes and behaviours associated with self-care (Smalls et al., 2012). Though the factors in the current thesis such as behaviours of children, wives, husbands and members from organized groups are quite different from the factors used by Smalls et al., (2012), they all had impact on emotional reactions or emotional status of people with diabetes but from different perspectives. Furthermore, it was observed that persons actively speaking about their emotional experiences were also positively associated to behaviours of self-care (Smalls et al., 2012). This was not supported in the current thesis, possibly due to the type of population used in the current thesis. The research participants in Smalls et al., (2012) were African Americans who are believed to be so much religiously inclined, which tends to explain the reasons for their behaviours having “emotionally charged faith-based beliefs” (Polzer and Miles, 2007).

It is also important to note that the work of Junghyun Kim et al., (2010) as discussed previously in the literature review identified accessibility of social support factors in emotional well-being of patients with breast cancer. This was not supported in the current study, possibly due to the nature of the respondents in the current thesis with different experiences. Participants in Junghyun Kim et al., (2010) research were from a rural setting in Wisconsin in Detroit with different cultural background which might have determined their behaviour. Most of them were 51 years of age on average with secondary school education, also with different condition with different experiences living with cancer as compared with participants over 40 years with limited education living with type 2 diabetes. Their study participants were not diabetics; however their findings may have implications for diabetics in Ghana and elsewhere. Participants in the current study were over 40 years with limited

education; however most of them were 51 years of age on average with secondary school education which seem to suggest no clear directional differences, but in the Ghanaian participants, we have already noted that strong cultural and social ties between people may serve the reason why emotional support was essential in their coping approaches. Lessons learnt from the reviewed studies as well as findings from the current research suggest that intervention programmes aimed at helping individuals with diabetes mellitus to cope positively need to take into consideration services of counsellors and clinical psychologists to deal with emotional problems of individuals living with diabetes mellitus and other chronic conditions. In these way emotional problems associated with diagnosis and living with diabetes may be dealt with in an efficient and meaningful and professional manner.

It is strongly suggested that, to be able to empower patients with diabetes mellitus and other chronic conditions to cope positively, it will be prudent to strengthen emotional support systems we have in Ghana by bringing counsellors, clinical psychologists, nurses and doctors as well as other healthcare professionals and lay people together to establish common therapeutic agenda of care for these people based on socio-cultural beliefs.

g) Confrontation with family members alleged to have caused the condition – use of anger, insults, physical attacks, and accusations

Participants under 40 years with limited formal education as well as over 40 years with limited formal education employed confrontation with family members as a strategy to deal with members of the family as well as other people who were alleged to have caused their diabetes condition. They rained insults on the alleged causers of their diabetes as well as failure to speak in terms with that person. Anger was also expressed at such individuals and

avoided them in any social interactions, accusing these individuals as bewitching them. Only those under 40 years with limited education however employed suicidal intents to take off their lives because they were accused of causing their own diabetes, whereas participants under 40 years with Secondary Education and Above Education employed social isolation to make sure that people did not hear that diabetes had been diagnosed to avoid stigmatization because they were stigmatized as having HIV/AIDS due to severe weight loss in diabetes, which De Graft Aikins termed as “HIV/AIDS related stigma” (De Graft Aikins, 2007).

Confrontation strategy corresponds to offensive strategies for coping with situations. The use of confrontation in this context is not a strategy to deal with the condition rather is method to deal with the individual who is perceived to have caused the condition spiritually. This may include physical attacks and insults of the accused person which the researcher considers to be a negative coping method. The confrontation as a coping strategy in the context of Ghana seems not have been found by other researchers. What this study is showing is that this coping method is more pronounced among participant under 40 years with limited formal education as well as over 40 years with limited formal education. In other research studies confrontation as a coping strategy is used to face the disease rather than to avoid it (Zhang et al., 2005). For example, this may include the need to source financial support to take care of self in illness situation, such as buying of drugs. It may also involve the use of positive or constructive action to manage the emotional and physical manifestations associated with the disease condition (Olley, William Brieger and Olley, 1997). The differences in the confrontation approaches in Ghana and elsewhere may be stemming from the cultural orientation in these settings. Knowledge on different types of stressors and their appropriate coping strategies may be helpful in preparing clinic-based counselling to manage adaptation problems associated with any disease condition including diabetes. Intervention programmes which are capable of addressing inappropriate coping methods used by people with chronic

conditions will go a long way to offer hope and optimize health of these individuals and to avoid preventable complications associated with sheer use of inappropriate coping methods. The use of confrontation as a method or coping strategy to deal with individuals alleged to have caused other people's type 2 diabetes is a new finding in this thesis as we know in elsewhere that confrontation actions are used to deal with the disease condition and not the human beings. In this thesis, the use of confrontation strategy in coping was employed by participants under 40 years of age as well as those over 40 years with limited formal education showed this behaviour, which seem to suggest to the researcher that probably people with poor educational background who appear to have less fulfilment in life and recognized as "grass root individuals" may tend to show such behaviours of confrontation with other people.

h) Suicidal Intent in Coping

Participants under 40 years with limited education however employed suicidal intents to take off their lives because they were accused of causing their own type 2 diabetes because they have spiritual powers to cause diabetes to themselves. However, respondents drew on their profound religious belief in God, which prevented them from taking the ultimate step. This finding in the current thesis is similar to what other studies identified. For instance, in a study conducted by Pompili et al., (2009) it was identified that sense of hopelessness was observed among type 1 and 2 diabetic patients. This is because, the participants experienced despair following diagnosis of diabetes due to hassles associated with living with diabetes mellitus including changes in daily routines of living such as food restrictions, pains with daily injections and general interruptions associated with the condition. However, the ages and educational differentiation was done in the current thesis to identify people who actually use confrontation as a coping strategy, which Pompili et al., (2009) failed to do in their study.

Similarly, patients with type 1 diabetes in a British study had 11 times the suicide rate, compared to those in the general population (Roberts, Goldacre and Neil, 2004), while adolescents with diabetes in a United States research had higher rate of suicidal ideation (Goldston et al., 1997). These findings are general as socio-demographic factors were not considered in determining their coping types but in the current thesis age and educational factors were considered to recognize group of people and their association with confrontation, suicidal intents and social isolation. In addition, it has been noted that poor quality of life among diabetics is associated with suicidal intents and thoughts. Challenges which the participants in Pompili et al., (2009) experienced which led to suicidal ideations are similar to the findings in the current thesis in which respondents experienced varieties of interruptions associated with living with the condition. However, the question of accusing the participants in the current thesis causing their diabetes due to their own bad spiritual powers is unique to this current Ghanaian thesis but Goldston et al., (1997), Roberts, Goldacre and Neil (2004) and Pompili et al., (2009) did not report as these researches were done in different cultural settings where social and cultural issues are different.

i) Social Isolation in Coping

Additionally, participants under 40 years with Secondary Education and Above Education employed social isolation so that other individuals do not become aware of their diagnosis in order to evade stigmatization due to severe weight loss in diabetes, which Ama De Graft Aikins termed as “HIV/AIDS related stigma” (De Graft Aikins, 2007). Explanations of factors for these perceived causes of social isolation in the current study are similar to factors Holley (2007) also identified for patients suffering chronic diseases. Factors such as difficulties associated with movements, transportation problems, physical disabilities including obvious and unseen ones, employment problems, poor social relationships with

family members, alterations in social responsibilities as well as stress and other emotional problems such as anxiety and fear as well as apprehension led to social isolation (Holley, 2007). Vlassoff (2007) also indicated that physical limitations are associated with social isolation among patients with type 1 diabetes mellitus as patients employ this approach to hide from people to avoid stigma associated with the physical disability associated with diabetes. Though these studies were done in different settings, the reasons for social isolation in the current study is similar to the reasons for social isolation in Holley's 2007 research study which indicated physical disabilities including both apparent and hidden deformities. Similarly, what Vlassoff (2007) has mentioned in terms of social isolation is also the same as what the current thesis and Holley (2007) pointed out in terms of how interruptions in physical body or body image leads to social isolation among patients with chronic conditions including diabetes but none of them, Vlassoff (2007) and Holley (2007) showed age as well as educational differentiation in determining their coping methods.

Identifying factors which lead to social isolation in patients newly diagnosed with diabetes mellitus in Ghana will give a better understanding of how to care for these patients. Further research is therefore needed to explore these factors in Ghana. It may also be important to include community leaders like chiefs, opinion leaders, assembly members, nurses and doctors in the fight against discrimination and stigmatization of these individuals.

Community advocacy groups involving these opinion leaders can be formed to address stigmatization issues whereby they can educate the general public to refrain from stigmatizing individuals with chronic diseases such as diabetes but rather to extend sense of love to them. Additionally, nurses are in exceptional situation to intercede for patients who experience social isolation. Other ways to intervene include looking for peers to support the social isolates, identifying counsellors as well as support teams, involving the family in the

care of the patient, enhancing spiritual growth of the patient, and looking for online support as well as “practicing therapeutic use of self” (Holley, 2007).

The reasons why participants under 40 years with Secondary Education and Above Education used social isolation as a coping method is not clear, however a study has indicated that, the perceived lower social status of women in society has impact on how the society perceive or look at them particularly when a women experiences any of stigmatized disease conditions such as HIV/AIDS, tuberculosis, leprosy, and mental diseases among many others as compared with men. For this reason, women are more stigmatized when both men and women are confronted with any of the stigmatized conditions (Vlassoff, 2007). The use of suicidal ideations, alcohol consumption and social isolation as well as confrontation with family members alleged to have caused other people’s diabetes to deal with diabetes related stress are all negative coping methods as we have identified in the literature chapter as they do not seem to have answers to problems that people have.

j) Use of physical exercises such as jogging, walking in coping with type 2 diabetes mellitus

Both respondents under 40 years with limited formal education as well as participants over 40 years with limited formal education used physical exercises such as jogging, walking to manage their diabetes as well as the use of meal plan to manage the preferred diet in diabetes. These findings are in support of De Greef et al., (2011) who explored environmental factors that supported type 2 diabetics to perform physical activities in Belgium. In their study it was identified that environmental factors such as availability of “home equipment” for exercises, “walkability”, as well as “aesthetic convenience of physical facilities” meant for physical exercises were very important factors to encourage diabetics to do exercises. These factors are important for physical activity to occur because their availability will stimulate users to

utilize them to improve their conditions. They suggested the need to remove or avoid actual and potential barriers that will affect type 2 diabetics to do physical exercises (De Greef et al., 2011)). In the current thesis, the findings indicated the type of exercises that are usually performed by the type 2 diabetics to manage their diabetes, however in De Greef et al., (2011) the need to ensure availability of facilitative factors for physical activities were stressed as well as the need to avoid barriers. Both the current thesis and De Greef et al., (2011) however expressed the importance of physical activity in diabetes care. Similar to the study by De Greef et al., (2011), a study by Korkiakangas, Alahuhta and Laitinen (2009) also explored factors which may influence physical exercises. Findings of their study showed that internal barriers as well as external barriers influence people's decision to engage in physical exercise. The internal barriers include factors which affects the patient's personal decision making as to whether to do the exercise or not and these include "lack of time, shame, fear of exercise, poor health, and overweight as well as difficult life situations" (Korkiakangas, Alahuhta and Laitinen, 2009). External barriers included "weather, cultural barriers, lack of exercise facilities, and lack of social support" among many other factors (Dutton et al., 2005; Korkiakangas, Alahuhta and Laitinen, 2009). It is noted that both studies, Korkiakangas, Alahuhta, and Laitinen (2009) and De Greef et al., (2011) expressed interest in the environmental factors that impact physical activities or exercises by patients. De Greef et al., (2011) concentrated on only environmental supportive factors which will motivate patients to do exercise such as of "home equipment" for exercises, as well as "aesthetic convenience of physical facilities". However, Korkiakangas, Alahuhta and Laitinen (2009) focused on both internal as well as external factors which may serve as barriers for these patients to perform physical activities to improve health. However, the two studies, Korkiakangas, Alahuhta and Laitinen (2009) and De Greef et al., (2011) failed to mention the type of exercises that diabetics are supposed to do, which the current thesis identified. Conversely, the current

thesis was not able to identify facilitative factors as well as barriers to physical exercises among type 2 diabetics. It is important to note that if we are able to identify barriers to physical activities, way out may be identified, so that we can center on advantages more sturdily than the obstacles (Nagelkerk, Reick and Meengs, 2006). Intervention programmes in diabetes management in Ghana that take into accounts the use of physical activity for patients with diabetes mellitus will go a long way to help these patients and the general public. However, what the current study is showing is that, the use of physical activity by diabetics is more common among participants under 40 years with limited formal education as well as participants over 40 years with limited formal education. The findings seem to suggest that educational level did not influence the respondents' decision to do the exercises as only that the respondents under 40 years with limited formal education as well as participants over 40 years with limited formal education used physical exercises.

k) Use of humour in coping

Limited number of participants grouped under 40 years of age with limited formal education used humour to deal with challenges associated with living with type 2 diabetes mellitus. Respondents used humour to cope with their stress associated with the condition. Recollections of interesting experiences in life were used to create humour with diabetic patients calling to help 'take their minds off' their current condition through conversations about the past; a type of reminiscence therapy. Humour has the capability of eliminating stressful experiences among patients and healthcare professionals because it has the ability to let people overlook what may cause stress to them in many situations. Again humour can be used by healthcare professionals to engage their patients in a therapeutic conversation so that their minds may be taken away from the disease conditions as well as for thrashing out complicated matter with the patient (Bennett, 2003).

It has been noted in research studies with inadequate proof that humour and laughter may lead to a sense of well being and improve relationship (Bennett, 2003). On the issue of diversional therapy, the findings indicated that patients listening to music on radio and other amusement programmes on radio popularly known in Ghana as 'Toli', a form of humour created by other people during particular interactions. For example, wireless programmes were reported to alleviate stress. Participants danced for their husbands and the children, which also served to reduce fears and anxiety associated with the condition.

In another vein research, Bennette and Lengacher (2008) have indicated that humour can have emotional and physiological problems associated with neurological function such as seizures. It is noted that a sudden rise in the blood pressure following laughter may cause cerebrovascular accident or myocardial infarction in people at risk of developing these conditions. However, it has been found that humour and laughter is capable of reducing stress hormones such as epinephrine (Bennette and Lengacher, 2008). None of these reports have indicated particular age groups with specific educational attainment which usually use humour in coping with disease conditions. What this study makes known is that participants grouped under 40 years of age with limited formal education used humour as a coping method to deal with challenges associated with living with type 2 diabetes mellitus.

In the researcher's social interactions and experience with other people in Ghanaian societies, he has noted that humour is an important tool used in many situations to manage tensions, anxiety, apprehension and other forms of emotional problems in individuals as a result of unpleasant life experience and events. For instance in traditional societies, humour is created to make laughter among widows or widowers during funerals. This is intended to take off one's mind from such sorrowful events or situations in Ghanaian society especially when it is

time for the widower or the widow to eat, thus humour in this way acts as a diversion therapy for people who face difficult life situation.

Looking at the variations of ages of respondents in this thesis, it is only respondents under 40 years with limited formal education who used humour as a coping method to deal with the challenges of living with type 2 diabetes. We may speculate that, probably, type 2 diabetics under 40 years who seem to be young in age as compared with those over 40 years with limited formal education tend to use humour and amusement to manage their stress associated with diabetes.

1) Dealing with sexual dysfunction in type 2 diabetics

Similarly, small number of the respondents over 40 years of age with secondary education and above education reported of sexual dysfunction associated with living with diabetes. Respondents were confronted with sexual dysfunction, which doctors were able to treat with medication. Similar to the findings in the current Ghanaian study, male diabetic patients in Leandris and colleagues research appealed to their wives to bear with them because their doctors had prescribed some medications for their problems associated with the sexual dysfunction, as most of them mentioned that the problem was stressful sometimes, but their wives understood the situation (Leandris, Apophia Namageyo and Leonard Jack Jr., 2007). In this way, these patients were able to cope with problem confronting them in a positive and appreciable manner. In my observation with patients as a nurse, the researcher has observed that in Ghana beliefs associated with maleness and masculinity as well as adulthood are extremely embedded in the culture and issues associated with sexual dysfunction are reserved as private matters and sensitive issues. Men are noted to demonstrate strength, to be independent, and to shun manifestations of sentiments or emotions that may possibly be interpreted as a limitation or weakness on his part as a man.

With this background information, men in Ghana who are alleged to have sexual dysfunction are considered very weak in terms of their manhood and are therefore not accorded 'a man status' in Ghanaian society as compared with other men who are sexually strong. Sexual dysfunction is highly stigmatized in Ghana and so the affected individual find it difficult to boldly report it to their healthcare providers for fear of being stigmatized because the affected man is no longer respected as a 'man'.

Apart from the medical treatment, which such patients received to cope with the problem, it would also be very prudent to establish psychological support systems for them.

Psychological support systems such as counselling in combination with medical treatment will be beneficial to these patients in Ghanaian care settings. It may also be important to make assessment of sexual function a routine procedure in diabetics when they report for treatment at the hospital as many people reluctantly disclose these problems to the physicians during hospital visits for fear of stigmatization. Individuals with diabetes probably as time goes on may develop complications with advance in age, therefore respondents over 40 years of age with secondary education and above education probably reported of sexual dysfunction among other participants.

m) Dealing with challenges associated with schooling and teaching

Finally, another small number of participants also under 40 years with secondary education and above education mentioned challenges with schooling and teaching respectively.

Respondents reported living with diabetes as challenging in many ways, including those associated with being at school as both student and teacher. Research reports have also shown that effect of children who do not receive adequate care at school can create difficulties for the family, the school or the class that the child attends, as well as the fact that the teaching can be interrupted when parents or care providers, during their frequent visits to the school

(Juvenile Diabetes Research Foundation, 2011). With respect to difficulties that the family will face, parents are likely to leave their work place and attend to the child at school which in the long run may affect parents' work. The entire class activity may also be interrupted if care providers are required to attend to such children (Juvenile Diabetes Research Foundation, 2011). One of the major barriers of care to students with diseases which need regular attention such as diabetes is a situation whereby the student is too young to care for self (Juvenile Diabetes Research Foundation, 2011). Other studies have shown that some children with disabilities face stigmatization at school because their teachers as well as students show negative attitudes at them because they perceived that teachers saw them different from children without disability (Mcdougall et al., 2004). However, female students demonstrated positive attitude at the other students with disabilities as compared with their male counterparts and the students with friends with disabilities also indicated good behaviour towards their friends with disability as they have already established affiliations for such individuals. In the current thesis as we have noted, the students reported that they were seen differently by the colleagues as they needed to eat separately and at different times, and so they perceived as being stigmatized by their colleagues. This situation is similar to what Mcdougall et al., (2004) has reported as both teachers and students saw those with disabilities as different from those without disabilities. However, studies reported by Juvenile Diabetes Research Foundation (2011) give general effects and challenges of caring for children with disabilities who attend school.

In addition, Medina and Luna (2004) also examined the experiences of students with Mexican American origin admitted in special school programmes and found "negative educational, personal as well as social outcomes". This is because the students complained about experiencing disrespect from teachers because the teachers used derogatory terms to describe them in class (Medina and Luna, 2004). The ideas in Medina and Luna (2004) work

are similar to what the current study and what McDougall et al., (2004) have reported as they all focus on challenges associated with students with special needs because of disability but Medina and Luna (2004) noted the outcomes of these negative attitudes towards school children with disabilities and categorized them around “negative educational, personal as well as social outcomes” (Medina and Luna, 2004). What these reviewed studies failed to recognize is the age differentiation in terms of challenges these students faced living with diabetes and other chronic conditions and how they coped with it. The current study is showing the age and educational status of students who have diabetes challenges as students and how they managed with it.

While it is likely that staff as well as students can suffer from diabetes mellitus it is crucial for school authorities to institute measures of how to help their own staff to take off for medical reviews. Ill health affects productivity, and so careful planning of how staff in an organisation can take off for their medical care is very essential for the survival of the organization and the individual as well. There is the need for critical look at how students and staff with diabetes should be helped to manage their conditions wherever they find themselves. In this way, students and staff in schools, colleges and universities with diabetes will be able to cope with the condition in a more appropriate and satisfactory manner.

The challenges associated with schooling were unique only with the participants under 40 years who were still in secondary, who experienced this special problem.

The following section looks at the assessment of the model used in this study whether it was able to achieve its aim for which it was chosen.

5. 13 Theme 13 - The Theoretical Framework:

5. 13.1 Lazarus and Folkman's (1984) Transactional Model of Stress Management

The conceptual framework, Transactional Model of Stress Management (TMSM) or Interactional Model of Stress Management (IMSM) developed by Lazarus and Folkman (1984) attends to the needs of diabetic patients at a hospital in Ghana. In this hospital, individuals who were diagnosed with diabetes were confronted with difficult issues such as high cost associated with the treatment of the condition and interruptions to social identity (stigma) due to weight reduction which was associated with HIV/AIDS. They were also faced with anxiety and fear related to the unknown outcome of the disorder as well as physical interruptions among others. Diabetic patients in these situations utilized the primary appraisal of the cognitive component of the model to evaluate the problems or challenges they were confronted with to look at the extent to which the problems or the challenges affected them. The secondary assessment component of the model centred on the available resources used by the patients, newly diagnosed with type 2 diabetes to manage their problems or challenges. The study identified these resources as support from family members, friends and other significant individuals, spiritual and religious backing from religious assemblies as well as dependence on the Divine spirit and faith, use of healthcare providers for support, information regarding support and self-management and care, using of peer groups and similar support systems. Other resources included the use of exercises to handle diabetes, drawing on amusements to cope with irritating circumstances and use of confrontation mechanisms against family members who were alleged to have caused patient's diabetes, social isolation, consuming too much alcohol, and use of suicidal intents as coping methods.

The model is appropriate and capable to explain the extent to which coping methods were used by the patients, newly diagnosed with type 2 diabetes in Ghana, in the present thesis as it was able to identify the primary appraisal or assessment and the secondary appraisal or assessment. The primary assessment aspect of the framework (Lazarus and Folkman, 1984) was used to identify the challenges they face living with diabetes. The secondary appraisal part of the model (Lazarus and Folkman, 1984) looked at the resources the patients have at their disposal to deal with the challenges. In addition, the model was able to address or explain how participants reacted to diagnosis as having diabetes mellitus and how they were able to resolve to the reactions of diagnosis.

Helpful as it is in shedding light on the factors which influence coping strategies for patients, newly diagnosed with type 2 diabetes, it appears to be limited in explaining some other aspects of the current thesis findings. The model is deficient to explain participants' perceived beliefs about the causes of diabetes in Ghanaian context, social meanings of diabetes in Ghana, patients' choice of treatment after diabetes diagnosis and the concept of cure for diabetes in Ghanaian sense. Patients' perceptions about the causes of diabetes and social meanings of diabetes in Ghana would have been dealt with by a folk belief model for diseases which interprets, explains and describes most diseases in traditional and socio-cultural context (Coronado et al., 2004).

In addition Good's model (1987) is a better choice to explain patients' behaviour in the choice of treatment after diagnosis of diabetes mellitus. Good's model (1987) or The Pathway Model commences with the detection of disease manifestations. The framework describes the choices people make in terms of healthcare services which are available to them, such as traditional treatment or biomedical services. The Pathway Model also explains the role of significant others such as family members in the choice of type of treatment in healthcare, just as the case in Ghana where family members put pressure on individuals to seek spiritual

care in situations where individuals get chronic diseases like diabetes mellitus. The model explains the social context under which the individual functions considering the part that families, significant others as well as friends play in planning and executing care of people affected with disease conditions. In addition the framework looks at the choice and decision making as well as health seeking as an active or dynamic process, because views associated with disease conditions may change with time.

Similarly, the health belief model (HBM) by Sheeran and Abraham (1995) to a lesser extent can also be used to explain patients' behaviour in the choice of treatment after diagnosis of diabetes. The health belief model is a useful framework used in a number of subject areas such as traditional medicine and public health. According to this framework, behaviour of an individual is directed based on the five reasons below:

- (1) The belief about the extent to which individuals perceive that a particular disease condition or a problem is a threat to their lives.
- (2) The level or extent to which people are concerned regarding health issues.
- (3) Beliefs concerning consequences of health practices and factors that are likely to enhance or interfere with putting them into practice.
- (4) Factors that facilitate actions in terms of seeking a particular healthcare, such as influence of commercial advertisement from media, product promoters and severity of clinical manifestations of a disease in question as well as pressure from family members to seek a particular type of treatment.
- (5) Healthcare is also sought depending on socio-demographic factors such as the class and values shared by the individual affected with the disease condition as well as individual's religion and culture. Additionally psychological and sociological factors are considered in health seeking behaviours by individuals such as group pressure.

The final chapter looks at the limitations associated with this thesis, considers implications for healthcare dispensation, healthcare advocacy issues in relation to diabetes care as well as community mobilisation in support of diabetic patients' empowerment. At the end of the chapter conclusion has been drawn as well as recommendations for future research have been suggested.

Chapter Six

Study Limitations, Implications and Recommendations

6.1. Introduction

This thesis aimed to explore the lived experiences and subsequent coping strategies utilized by newly diagnosed patients with type 2 diabetes mellitus at a hospital in Ghana. Diabetes mellitus is rapidly increasing in prevalence and posing challenges to patients who have it (Dahiru et al., 2008; Mbanya et al., 2010). It has been identified that patients who are diagnosed with diabetes have “diabetes-related distress” such as frustration, anxiety and fear, anger, being stigmatized, and how to cope with self-management demands and their preferred lifestyle, micro and macro complications of the disease, high cost of treatment of the disorder, and in particular how to integrate diabetic treatment into daily life. These and other problems such as frequent attendance at the diabetic clinic, and other associated complications such as leg amputations and loss of vision among the diabetics provided the motivation and impetus to explore how patients cope with the challenges living with type 2 diabetes mellitus.

A hermeneutic phenomenological approach was employed as appropriate for a thesis concerned with lived experiences. Twenty seven (27) participants were conveniently drawn from a sample of newly diagnosed patients with type 2 diabetes (within three months of diagnosis) who attended the outpatient department at a hospital in Ghana. Recruitment continued throughout August and October 2009. Data collection and analysis proceeded simultaneously in this thesis. Data analysis drew on Creswell’s (1998) approach to qualitative data analysis, which provided a rich description of the essential structures of the phenomenon under thesis. Spoken language was not considered an inclusion criterion as the researcher could speak fluently in any of the major languages of the people in this part of Ghana, either

Brong Twi, Asante Twi, Fante Twi or Akuapem Twi and English. An added advantage is that about ninety five percent (95%) of Ghanaians can speak the Twi Language.

Patients' perceptions about the cause of diabetes mellitus, the social meanings attributed to diabetes mellitus, patient's reactions to diagnosis and subsequent resolution were key themes identified in the data. However, respondents also discussed choosing treatment while at the same time hoping for and seeking cure for the condition, which was underpinned by respondents' profound belief in God as a higher power. Participants discussed strategies enabling them to cope with diabetes and these were variously reported as positive, negative and alternative, depending on the impact of the strategy on subsequent health behaviour. These themes were discussed in the light of relevant literature. The chapter consider implications for nursing practice and service delivery, nursing education, policy, primary health care, advocacy and community mobilization. These are followed by original contribution of the thesis and ending with recommendations on future researches. The chapter commences with a consideration of the thesis limitations.

6.2. Limitations of the Study

The researcher has worked in the hospital where the research was done and being a senior nurse in this hospital, there was possibility to cause power difference between him and the research participants which could have affected the research outcome. Anticipating this could easily happen, the researcher came to the level of the participants in terms of speaking with them and also even in their way of dressing so that the researcher could easily identify himself with them. As most of them were rural folks, there was the need to do this in order to bring them closer to the researcher who has higher education as well as a professional nurse who has respect in the community where the thesis was done.

The data analysis in the present thesis was carried out manually. The use of manual data analysis as opposed to using computer software might have introduced some technical errors. The use of computer software for coding is very effective and cost effective (Banner and Albarran, 2009). It is very fast in data analysis and less time is spent on large documents as opposed to manual approach. In addition the use of computer assisted analysis ensures that secretarial or clerical responsibilities are reduced, flexibility is better, and enhances validity as well as auditability of qualitative study (Banner and Albarran, 2009). However, feelings of research participants during data collection as well as certain occurrences during data collection cannot be captured from the data by electronic means such as the Nvivo technique especially under qualitative research. In practical sense reflections regarding research data that have been identified by a researcher cannot be performed by an electronic means. In view of these observations the researcher preferred and decided to analyse the present thesis data manually. Crawford, Leybourne and Arnott (2000) have pointed out that it may be helpful for researchers to use both manual and electronic methods to do data analysis to compare findings. Crawford and colleagues admonish researchers especially those with qualitative orientation to be open to both methods in order to enjoy the advantage of each. However, Denzin and Lincoln (2003) have noted that it is essential that researchers themselves explore into issues relating to life experiences of human beings rather than to leave them to machines to do. Nevertheless, it is inevitable that the process of transcribing and translation resulted in some loss of data integrity.

Additionally, the researcher being a Ghanaian, interviewing his own people in Ghana, and analysing the data himself, there was possibility of personal biases in the research processes. However, this was reduced as the researcher asked open ended questions which allowed the research participants to narrate their experiences naturally.

In many cases one of the drawbacks of hermeneutic phenomenological is that findings may not be true as well as worthless (Rolfe, 2006). This is because the knowledge develop from it is based on explanation of individual experiences. The truth is identified as both the researcher and participants ideas are brought together and interpreted (Draucker, 1999). However in this thesis the researcher allowed the participant's ideas and experiences as well as perceptions communicated to readers as the participants are at the centre of the study (Draucker, 1999). The previous section looked at the thesis limitations and how the researcher tried to contain such drawbacks. The next section focuses on thesis implications.

6.3. Implications of the Study

This part discusses the implications of the study. It centres around four major areas where the current findings could be utilised strategically to influence current diabetes care and support in Ghana. These are policy implication for nursing practice and service delivery in general, nursing education, primary health care services, and advocacy and community mobilization all of which have meaningful implication on how to support diabetic patients to cope with this chronic condition. First, let us look at the implications for nursing practice and service delivery in general.

6.4. Policy Implications for Nursing Practice and Service Delivery in General

The implications for nursing practice and service delivery in general forms one part of the model of care being proposed in this thesis. The current thesis has presented findings which may be important for nursing care in Ghana as patients' belief systems underpin so much of their actions which may inform nurses the need to give cultural sensitive care to these patients. The findings present important aspects of how these patients are supported and helped by nurses to manage their condition, which may go beyond diabetes, but other chronic

conditions such as hypertension, cancers and similar ones are included. Understanding of patients' misconceptions by nurses is likely to offer the nurses opportunity to interact with patients in a meaningful way in their care (Rutebemberwa et al., 2013). For instance these will help the nurses to draw patient education programmes as well as to give patients total and individualized nursing care. For instance, patients' "misconceptions and inappropriate thinking" regarding causes of diabetes may be addressed in their health education. In addition to the application of the findings for giving cultural sensitive care for patients in Ghana, the findings is of utmost importance for the Ghanaians in the diaspora, as nurses and other healthcare providers outside Ghana will benefit from this thesis findings in their care of Ghanaians and people who share similar belief systems. The following section highlights the need to develop policy framework which may warrant an all-inclusive alliance of diabetes management into general practice and the primary healthcare system in particular, not forgetting the pivotal role of nurses and other health professionals.

Global initiative and approach by the World Health Organization (WHO) to avert and control Non-Communicable Diseases (NCDs) is a chief priority and concern for developing countries such as Ghana and other countries in the sub-Saharan Africa (WHO, 2008). In the year 2000, the World Health Organization (WHO) came up with three (3) key strategic objectives to guide in the prevention and control approach of Non-Communicable Diseases (WHO, 2007). These centred on i) the need to recognize NCDs among vulnerable populations and to institute measures to take care and support these populations; ii) health promotion aimed at educating people to refrain from ill health risk factors associated with NCDs including lack of physical activity, poor dietary habit and smoking; and iii) to improve care of individuals living with NCDs including diabetes, hypertension, cancers and similar diseases by formulating policy guidelines and cost effective measures. In addition to this global strategy in the prevention of NCDs, responsibilities for countries were outlined clearly to maintain the

plan. Following these plans, in 2001 WHO instituted action on prevention and control of NCDs including diabetes by targeting and considering risk factors for the development of such conditions (WHO, 2007).

In line with findings of the present thesis, it must be noted that efficient and effective implementation of preventive and control measures for NCDs in Ghana as well as other developing nations will need a model or policy framework which will ensure a comprehensive amalgamation of diabetes management and care into general practice and the primary healthcare system. The policy framework must make sure that government becomes committed to the provision of healthcare equipment, sufficient human resources and drugs for people living with chronic conditions including diabetics. In this way individuals living with diabetes will be able to take care of themselves in a meaningful and therapeutic as well as holistic manner. As already noted in the findings, some of the bottle necks affecting diabetes care in Ghana are inadequate resources, drug and equipment to mention a few, so satisfactory provision of these resources will go a long way in improving care of diabetics in general.

In Ghana and for that matter in developing countries, the lack of a policy framework for the management of Non-Communicable Diseases such as diabetes is attributed to limited levels of information regarding the condition and lack of backing or patronage from interest groups in healthcare arena to support the need for such frameworks. The information which has been produced from the current thesis therefore forms a foundation for policy formulation and interventions meant for individuals living with diabetes. A proposed framework which is needed to take care of chronic conditions in general will have to consider determinants of choice of treatment as well as other health related behaviours for newly diagnosed type 2 diabetics in a complex healthcare system (Shaikh & Hatcher, 2005b). As revealed in the

current thesis, the dual use of traditional and biomedical care systems by patients is inevitable in the treatment of diabetes. This means that the use of traditional medicine will persist in diabetes care as well as other diseases in Ghana. A comprehensive healthcare policy review should acknowledge the role of traditional medical practitioners, faith healers, herbalists, bone setters and other traditional healers. The policy review should consider provision of strategies for the development of modalities for incorporating their services into the biomedical care system to guarantee excellence in care and management of diabetes and other chronic diseases in Ghana whilst ensuring they do not harm. The previous section examined implications for nursing practice and service delivery in general. The following section centres on policy implications for nursing education.

6.5 Policy Implications for Nursing Education

Findings of the current thesis may be important in nursing education in Ghana as curriculum development may need to take into consideration some of the findings. Nursing students must be made aware of these perceptions of patients regarding chronic diseases as they undergo training so that socio-cultural behaviours associated with their patients may be understood in order to offer the needed and appropriate care (Bednarz, 2010). For instance in this thesis, social meanings associated with diabetes as well as perceived sources of diabetes were unearthed which to a large extent determined patients health seeking. Having known these behaviours and perceptions of Ghanaian diabetics during training in school will position them well to be able to meet their ever changing demands in a cultural sensitive manner. So far we have been looking at policy implications for nursing education. The next section examines the need for primary health care services to augment the total health delivery system in dealing with chronic conditions.

6.6. Implications for Primary Health Care

The concept of primary health care system is the basis for the prevention and early detection of chronic diseases including diabetes type 2. This is done through public health education and health screening respectively. As already noted above, the idea of the Global Health Strategy in 2000 by the World Health Organization was to promote Primary Health Care Systems (WHO, 2008). Primary Health Care system in this regard forms one pillar of the care model that is proposed to take care of people living with chronic conditions such as diabetes mellitus. This is because issues affecting the patient such as accessibility on one hand and equipment supply on one hand for the hospital may be addressed by PHC component of the care model. Now, let us look at specific factors under the PHC system which will augment the care delivery system for the benefit of patients.

A major empowerment approach identified in the current thesis was health education and counselling sessions organised by healthcare providers for their diabetic patients to cope with their diabetes. The findings have also indicated the need for rigorous public health education about diabetes in order to ensure early reporting at the hospital for prompt detection of the condition. It should however be noted that increased public awareness of the condition is likely to activate greater than before demand for care services which is likely to put pressure on the limited existing resources such as clinics in Ghana to offer biomedical healthcare services. Based on this, there is urgent need to propose and institute measures to meet ever growing healthcare needs of the people with chronic conditions including diabetes. Such a proposed framework should address comprehensive issues around accessibility and affordability of diabetes care and management services within the primary healthcare approach in Ghana. It is also prudent to equip the healthcare facilities with competent healthcare staff, ample equipment as well as other physical or material resources.

One of the major challenges people with diabetes face in the care and management of this disease according to the current thesis is the poor availability and affordability of equipment like blood glucometers and test strips. Accessibility is a major challenge as some common equipment for patient care are not available but may be secured at the private clinics and pharmacies at high prices that may exceed the affordability of the ordinary person in which case patients are forced to buy by reducing the prescribed dosages and at times stop buying the drug completely. This has negative implication on the outcome of the diabetes care of the affected individual. The overall advocacy approach as well as development of a policy framework is paramount for diabetes care in Ghana by making sure that there is availability of skilled healthcare providers, clinical and medical equipment as well as drugs. Reflecting over the entire findings of this thesis, it clearly defines the need to develop an explanatory model for diabetes care in Ghana which may be used to guide practice at all levels in Ghana. In this way patients will be able to cope with their diabetes in a significant manner.

In Ghana, the introduction of the National Health Insurance has its own problems as some of the participants in the current thesis mentioned that registered patients with the scheme are at times asked to pay additional monies before they are able to secure their drugs at the hospital. In line with the current financial management of the healthcare system in Ghana as observed in this thesis, especially the current healthcare insurance system, there is crisis for many patients and hospitals in general in the management of disease conditions such as diabetes. Some patients are likely to attend hospital and go home without medication and also seek healthcare only in critical situations. Hospitals are not refunded monies spent to run the insurance systems as well as monies to buy drugs for patients under the current insurance system and so the system is dying out gradually to the detriment of the patients with chronic diseases such as diabetes and hypertension (Seddoh, Adjei and Nazzar, 2011). The proposed policy framework should address all these bottle necks in the management of chronic

diseases including diabetes. It is on this issue that the researcher suggests an explanatory model for diabetes care in Ghana which will go a long way to assist patients to cope with their chronic conditions. The proposed framework of care for diabetics will support care services including consultations with physicians, allied health services such as laboratory tests and X-rays and medicines, unlike the present national health insurance system which does not cover certain category of diseases and other healthcare services in Ghana. Patients who may qualify to enjoy certain services will clearly be defined under the policy framework to avoid delays in treatments.

In addition it may be prudent to engage other stakeholders in the policy framework formulation such as non-governmental organizations, policy makers, donors, developmental partners as well as other stakeholders. Their inputs may be helpful in addressing problems associated with healthcare financing in Ghana. They can support in the development of positive healthcare environments for patients with diverse healthcare problems such as diabetes and other related conditions. They can foster the integration between the biomedical and traditional healthcare care systems and orientations and support the global effort against increasing prevalence of non-communicable diseases especially diabetes, hypertension and cancers.

Further, a comprehensive approach should be identified to ensure implementation of the proposed policy that can address diabetes care. The government should be committed to the policy which is likely to yield needed effect in patients with chronic diseases. For instance, there is the need for the government in Ghana to give equal attention to chronic diseases like diabetes just like the support and higher budgetary allocations given to the health sector for the eradication of guinea worm, malaria and tuberculosis. It may also be important for the government to support research in the chronicity of certain diseases in Ghana such as diabetes, to mention a few. In Ghana, it looks like all the governmental support and monies

go into the control and prevention of infectious diseases at the detriment of NCDs which is contradictory to the measures under the 2000 WHO Global Strategy to prevent and control NCDs (De Graft Aikins et al., 2012a).

It may be essential to include local stakeholders in the governmental interventions in dealing with NCDs including diabetes. There is the need for the government to make sure that high priority is given to strategies and backed programmes aimed at preventing and controlling chronic diseases. Government departments as well as local, district, municipal and metropolitan assemblies may be involved in the fight against increasing prevalence of chronic diseases including diabetes in Ghana. For example, these assemblies should be encouraged to put together diabetes prevention and control initiatives into place of work agenda and programmes. We have so far examined the need for primary health care services to define total health delivery system in dealing with chronic conditions. The next section centres on implications of the findings of this thesis for advocacy and support as well as community mobilisation which subsequently empowers patients with chronic conditions to self-manage their challenges.

6.7. Implications for Advocacy and Community Mobilisation

This section explains the overall importance of advocacy and community mobilisation as well as support for diabetics so that they are able to cope with challenges associated with living with the condition. The practical implication of the advocacy and community mobilization is the need for diabetics to use the available support services in their care. This forms one part of the model for the care of diabetics.

Identification of advocacy plan and approach is paramount in the development and implementation of a policy framework to deal with diabetes issues in Ghana. Findings from the present thesis afford the opportunity for the development of advocacy agenda regarding

prevention and control of diabetes and other NCDs in Ghana. In line with the development of advocacy programmes is the need to establish alliances with key stakeholders in the promotion of prevention and control of NCDs. These health promotion entities and groups will influence policy and action in our effort to fight against non-communicable diseases including diabetes. It has been noted in the sub-Saharan Africa region that diabetes associations play pivotal roles in the advocacy and mobilization programmes in the prevention and control of diabetes in some countries (Ramaiya, 2005). These groups create awareness regarding causes of diabetes, clinical manifestations, diabetes complications and burden as well as cost of treatment and treatment options available. In some cases such advocacy groups are able to lobby for governmental support in unique circumstances for certain type of support and care services for its members which under normal circumstances individual patients may find it extremely difficult to shoulder individually. For example, members of diabetes patients association at the hospital in Ghana where the research was done on collective basis get support for its members in the form of subsidy in purchasing glucometers and strips for blood glucose check. In this way, diabetics are able to cope positively living with their condition. Further research into the activities of the diabetic patients' association at the hospital in Ghana where the research was done will offer great insight into their operations from which the lessons drawn may serve as a model for patient care in other hospitals in Ghana.

Additionally, relationship between biomedical and traditional healthcare system must be encouraged as both systems seems to be equally used by patients in Ghana. There are challenges associated with the complete integration of the two systems in Ghana, and so there is the need to look at the two systems closely to address the bottlenecks which interfere with their smooth and complete integration. It may be essential to research into factors that affect integration of the two systems.

Patients with diabetes continue to use services of herbalists and traditional healers both before they are diagnosed with diabetes and after commencing treatment at clinics according to the current thesis findings. It is based on this fact that there is the need to organise education for traditional healers and/or herbalists and other traditional healers about diabetes mellitus. This will ensure efficiency in their services and promote safety in their clients. This will also help engage their support in the identification of suspected cases and early referral of patients to biomedical care facilities. Similar educational programmes have taken place for traditional healers in Cameroon and Pakistan (Shaikh & Hatcher, 2005a; Mbeh et al., 2010). Similarly, Kofi-Tsekpo (2004) stressed the need to forge integration between traditional orientation of care and treatment and the biomedical form of treatment if the objective of the “Health for All by the year 2000” (WHO, 2008) was to be realised. However many African countries were not able to meet this objective by close of the 20th Century. Following this, there was an initiative by the WHO African Region to promote integration between traditional and biomedical health care system but this has not yielded any meaningful result (Kofi-Tsekpo, 2004). In addition to the efforts to make integration between biomedical and traditional healthcare system realistic, the leadership of African governments affirmed the period between 2000 and 2010 as an era intended for African Traditional Medicine (Kofi-Tsekpo, 2004). Further, 31st August each year was also put forward by the WHO as an “African Traditional Medicine Day”. These attempts to regularize the use of traditional medicine alongside the biomedical practice show the extent to which efforts are being made to bring the two systems together. Any policy framework needed to ensure effective management of diabetes care in Ghana should take into consideration the needed efforts to improve the integration between the use of biomedical and the traditional healthcare systems. As noted already in the literature section of this thesis, a cue may be taken from the Chinese healthcare system where traditional Chinese medical system has been integrated with the

biomedical care system. This was made possible due to smooth inter professional training and collaboration between Chinese traditional medical practitioners and scientific medical practitioners (Chung et al., 2012). Similarly, according to Grace et al., (2008) there is the need to allow team work and also to promote interprofessional training just like Chung et al., (2012) has pointed out already. However, there may be the need to monitor how the two systems work together and avoid patient exploitation and safety. From the researcher's personal experiences some patients in Ghana who employ traditional healthcare services eventually end up with complications and resultant death. This integration between the two may be possible depending on the following suggestions:

- i). if healthcare workers are prepared to work collaboratively with the traditional healers such as the herbalist, spiritual/faith healers, bone setters and fetish priests in the community
- ii). if healthcare professional become aware of the cultural beliefs and practices held by traditional healers regarding treatment modalities and management of diabetes and other diseases
- iii). a call to advocate for strong partnership between scientific research institutions such as the universities and the traditional healers association especially the herbalists for cooperation and development in research into plant medicine; and
- iv). the need to do further investigations to explore the usefulness of the traditional treatment approaches with the aim of bringing the two systems together.

The previous section considered implications for advocacy and community mobilisation, enshrined in the concept of social support services. The section also considered the need for integration between bio medicine and traditional medical system to manage and support patients with chronic conditions. The next section looks at the thesis original contribution to knowledge based on typical groups identified in the findings chapter. The chapter concludes with recommendations for future research.

6.8 Original Contribution to Knowledge

This thesis has occupied seven and half years of my life, during that time I have been reading vast amounts of literature about how people experience, react and cope with chronic disease conditions. However, specific literature on coping experiences to the Ghanaian people seems quite limited whereas the majority of research works done in this area come from the western world and Asian cultures. The researcher being Ghanaian, born and educated in Ghana as a nurse and also a nursing lecturer to the Master degree level, I felt I had an understanding of how people in this culture felt about an experienced chronic illness. As a researcher, when I interviewed all of my respondents, I began to identify many experiences as well as feelings which they were conveying and during the main interviews there was nothing they were saying that I did not know as a Ghanaian or as a professional nurse. Again, nothing they were saying surprised me. However, when I began writing up the findings and looking for themes I began to realise how deeply engrained all of the respondents experiences were with the idea of a spiritual explanation for their not only the onset of their illness but their experiences of it.

This behaviour was evident in the four typical groups that emerged in the findings chapter. Their narratives and comments or experiences began to fall generally into one of the four groupings or categories relating to the interaction of age and education. For example Under 40 years with Secondary Education and Above Education, Under 40 years with Limited Formal Education, Over 40 years with Tertiary Education and Above Education and Over 40 years with Limited Formal Education. From the researcher's point of view as a well-educated professional nurse, I expected that I would see that reflected in the respondents' experience, generally I expected that the younger, well educated people would not be using a spiritual perspective to underpin their understanding of illness as much as older less educated people. However, this was not the case. This I believe is a truly original and highly relevant

finding. Its ramifications for how we in Ghana educate people with type 2 diabetes and other similar chronic illness, how we educate our nurses and how we educate our children are really significant. I am not saying that we should be undermining peoples genuine religious or spiritual belief systems, but as professionals we should understand how important those beliefs are to all of our people and not make assumptions regarding age and education. Though the findings of this thesis cannot be generalized because of small sample size, the findings may still be applied in other parts of the world, since these lay perceptions and representations of Ghanaian diabetics may point to a particular direction and show how healthcare may be defined and delivered.

6.9. Recommendations for future research

The current findings have significant research implications. This is the first qualitative thesis carried out in Ghana on coping strategies used by newly diagnosed patients with type 2 diabetes mellitus. The thesis identified a number of findings, some of which require further research.

First, from the findings it has been observed that there is utilization of traditional healthcare by the patients prior to their diagnosis of diabetes and afterwards, therefore there is the need to investigate and assess the chances for integrating the traditional medical systems services and the biomedical healthcare system. The assessment of the traditional practices in the management of chronic conditions will help unearth the nature of training needs for these practitioners to improve the care of diabetics in their care facilities. Quality care for diabetics in sub-Saharan Africa including Ghana need essentially a committed and right teamwork between biomedical care practitioners, members of the diabetes patients associations and traditional healthcare providers. It is the responsibility of the Ghana Ministry of Health (MOH) and the Ghana Health Service (GHS) to foster greater cooperation between these

major stakeholders of diabetes care in Ghana to ensure improvements in the general diabetes management at all levels.

Second, considering the inappropriate beliefs about the perceived causes of diabetes from the patients' perspectives, there is the need to increase patient education on the diabetes in general. The findings of the present thesis suggest the need for such education to go beyond the patients attending the biomedical facilities or clinics. There is greater need to include the general population in the education about diabetes focusing on the clinical manifestations and the need for patients to present themselves to healthcare facilities for prompt action to be taken, for early diagnosis and treatment. In view of this, there may be the need to conduct research to determine the level of public knowledge and awareness of diabetes in Ghana. An understanding of lay knowledge as well as lay beliefs, attitudes and values connected with diabetes possibly will be essential for the establishment of public health communication and management intervention protocols in Ghanaian society. In addition, there may a need also to explore specifically health professionals' (nurses, doctors, pharmacists) knowledge on the standardized treatment protocol of diabetes in Ghana. Findings of this kind of research will help Ghana Health Service (GHS) design refresher courses for health personnel who are in the forefront in the management of diabetes in Ghana.

Lastly, from the demographic data of the present thesis it appears type 2 diabetes seems to affect many individuals irrespective of their age, economic status, professional background and gender. It may be interesting and essential to explore factors associated with the increasing number of diabetes across the different age groups in Ghana. It is also interesting to explore lifestyle factors associated with the increasing number of diabetes in Ghana and the need to find out about causes of the increasing level of diabetes cases among the rural

folks in Ghana. It may also be essential to do the current thesis in multiple sites in Ghana in an attempt to develop an Explanatory Model for Diabetes Care (EMDC), as well as relevant policies and meaningful intervention programmes in Ghana.

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